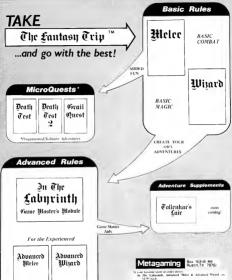
NUMBER 32

\$2.00

THE SPACE CAMER
THE MAGAZINE OF ADVENTURE GAMING

TRAVELLER
ISSUE

ITHILIEN CLASS SCOUTSHIPS
AZHANTI HIGH LIGHTNING
ALIEN CHARACTERS
CALCULATOR PLAY AIDS
YAQUINTO COMPANY REPORT
TEN CHARACTERS I WOULDN'T
LET IN MY UNIVERSE
AND 9 PAGES OF REVIEWS!



sing Lindmit stoff or observations.

In the Laboratic solid or observations, advanced Wornel or of Section March 1984, and Tolder, School 1984, and Considerate or Section 1984, and Considerate or Section 1984, and the Section 1984, an

NUMBER 32 - OCTOBER, 1980

Articles
ALTERNATE CHARACTERS FOR TRAVELLER * by Forrest Johnson
Generating alien and pseudo-human characters EXPANDING TRAVELLER * by William A. Barton
A look at supplements and play aids
ITHILIEN CLASS SCOUTSHIPS * by Mark Chittenden The winner of the Ship Design Contest
GAME DESIGN: THEORY AND PRACTICE * by Schuessler and Jackson
Part VI: More about movement COMPANY REPORT: YAOUINTO PUBLICATIONS * by Steve Peek
One of the newer game publishers.
TEN CILARACTERS I WOULDN'T LET IN MY UNIVERSE".
Ten NPCs to boggle players with

Fiction

MINUS TWO REACTION * by Lawrence Watt-Evans
One night in a local bar.

Computer Gaming

DEUS EX MACIIINA * by W. G. Armintrout	
Using programmable calculators in wargaming.	
SOFTWARE SURVEY	
An update: several more producers of game software	٠.

Reviews

AZHAN.																					
CAPSUL	Ε	RE^{\dagger}	ΊE	WS	٠.						٠.		 		 					 	١

GAMES: Barbarian Kings, Earth Gome, Elric; Final Frontier, Gemma World, Nord, SUPPLEMENTS. City of Lei Fabor, The Garesay Battary; Conliguest; Helipits of Vightfung; The Temple to Ashena, PLAY AIDS: The Compleat Fentatist; COMPUTER GAMES: Unsestion Orion; The Mean Checkers Machine; Planet Mincry, Surgon II; Tajpan, BOOKS: The Complete Book of Wargames.
PUBLICATIONS: The Asherican Wargames.

Departments

WHERE WE'RE GO	MNG	 	 	
GAME MASTER .				
ADVERTISERS				
CONTEST		 	 	
LETTERS				
NEWS & PLUGS				
CALENDAR				
READER ADS				
ART IN THIS				

ART IN THIS ISSUE: Linds Companella: 26; Joan K. Chladek: 6; Albrecht Durer: 30; Kein C. Ellis: 3, 14, 18; Greg Holmberg: maller curtoon; Paul Jaguays: 22; Denis Loubet: 4, 11: Norr Haples: 12, 24; Richard Mather: 17; Eric Richards: 32; Chris White: cover. (Photos on p. 8 coursesy of Marian Metals).

In This Issue

.6

8

11

22

Troveller is without question the leading of role-playing game on the major. It is seemed like a more than worthwhile togic for a special issue. So. "we've put a number of Traveller-related game, and supplement reviews, a variant seed, and the winner of the Ship Design Context. (There want's room to price the numer-up — but let it be noted here that Ron Shights's design run a close seeding that the winner was Mark Chittenden; his design numer was Mark Chittenden; his design numer was mark chittenden; his design numer was mark chittenden; his

This month's cover is by Chris White, who has done quite a bit of illustration for Avalon Hill — notably the box art for Dune and Maric Realm.

For the fantasy fan, we've got "Ten Characters I Wouldn't Let In My Universe." And for gamers in general, a report from Yaquinto Games.

-Steve Jackson



THE SPACE GAMER

Publisher: Steve Jackson
Editor: Forrest Johnson
Art Director: Denis Loubet
Contributing Editors:
William A. Barton
Ronald Pehr
Nick Schuester
Bruce F. Webster
Business Manager: Bton Fewell
Clisculation Manager: Aron Alliston
Utility Infielder: Elisabeth Bartination

THE SPACE GAMER (ISSN 0194-9977, USFS 434-250) is published monthly by The Space Gamer, 7207 Onion Crossing Dr., Austin, TX 78744, Second class postage paid at Austin, TX POSTMASTER: Smed address changes to The Space Gamer, P. O. Box 18805, Austin, TX 78760.

All material is copyright 1980 by The Space Gemer, All rights reserved, Printed in U.S.A. by Futura Press, Austin.

Subscrip		s, effective	
	US	Canada	Other foreign
One year	\$21	\$24	\$41
Two years	\$39	\$45	\$79
Lifetime	\$2.50	\$260	N/A
All price	s are in	U.S. dollar	s; payment must

be in U.S. dollars.

Where We're Going

More Pages!

Starting next month, TSG will be 8 pages longer, We'll keep up the new larger size as long as advertising allows. Ratically we don't ever want TSG to be more than 25% advertising. Even that is really too much. So . . . when there are too many ads for 32 pages. we so up to 40. Fortunately, having that many ads lets us afford 40 pages. That means our advertisers are the ones bringing you those extra pages so show your appreciation by spending some money with them.

Steve Jackson Games ??? !!!

Now the big news, Effective right now, I'm back in the games business, And very pleased about it, too. It's what I've wanted to do for a LONG time. publish my own same designs. I set a high standard for my own work: I hope you approve of it.

(There is a hasic conflict of interest hetween) "quality-oriented designers and profit-oriented trublishers. Both are vital to the hobby, but incompatible under the same roof. Only an independent designer can guarantee the eventual quality of his design."

-Randy Reed, in resigning his post as VP of Research and Design at Avalon Hill

That sums it up, right there. If you want to make sure something is done right, do it yourself. I want to design playable, fun games that will sell cheaply and have really nice components. If I have to publish them myself - well, that's the way it goes, I expect to have a lot of fun with this over the next few years. I'll do my best to make money at it, too . . . that's the only way you can keep a company going! But, again, that's

up to you. (A digression, This doesn't mean that I won't sell designs to other companies. I probably will. It also doesn't mean that I will publish only my own designs. I'm already publishing one "outside" design. I'll probably do others. And I'll work with the designers as I'd want a publisher to work with me . . . but the final responsibility for the quality of the same will he mine, because it'll have my name on it right after that designer's.)

The First Batch

There are four initial offerines. The planned release date for all four is October 15. As I write this, it's September 3: by the time you get to read it, it'll be late September or early October. So if you want any of these, go ahead and order now By the time your order sets here we quelit to be ready to fill it

You can read all about the new earner in the ad on the inside back cover - but I've not to easy a little hit here too There are three games. They're alike in that each is printed in color on glossy stock, each has 112 3-color counters, and each comes in a zinlock har. Other than that, they're very different. One is s-f. one is modern, and one is historical.

KUNG FU 2100 you've already seen: it was in TSG 30. We've dressed it up and fixed a few glitches, but it's the same eame: martial arts in the far future, ONE-PAGE BUILGE is another Battle of the Bules same. The simmick: Red-

mond Simonson wrote not lone see that

he wondered if a warrante could be written with one page of rules. Yes. it can. Here it is Good game, too. RAID ON IRAN: What would have

happened if the helicopters had cone into Tehran on schedule? A same about something that could have hap-

pened and still could happen The fourth product ign't a came it's a miniatures set. Cardboard miniatures These are full-color, 25-mm, front-andback naintings by Denis Loubet. The been picture in the ad hardly does them justice; you have to see them. These may make a lot of fantasy gamers throw away their old playing pieces. They're beautiful

Anyway, Steve Jackson Games is now in business. Wish me buck

Subscriber Renefits

For various reasons, the new game company is an entity separate from TSG. Nevertheless, there'll be close cooperation. And there will be benefits for TSG subscribers nurchasing the new earnes Right now, it's free postage on game

orders. Non-subscribers ordering games can nav 25 cents per game for 3rd-class

Next Issue

Next issue's theme will be play-by-mail games . . . computermoderated and otherwise. We'll lead off with a survey of the play-by-mail same companies. Also coming up:

A WarpWar variant - suitable for either play-by-mail or face to-face multi-player gaming.

Reviews of Warp Force One, Empyrean Challenge, and Universe II. A Company Report on Schubel and Son, moderators of "Tribes of Crane," "StarMaster," and other phm games.

Non-pbm features will include:

An Ogre/GEV short story and same scenario The winner of the Tran Contest, and several of the more fiendish

runners-up . . . complete with diagrams! And all the regular columns - including lots of capsule reviews,

Also: next issue we so up to 40 pages. More of everything!



mail, or 50 cents per game for first class. (First-class costs, but it sure shortens the wait!) However . . . TSG subscribers pay no postage fee when they order. You get a \$3 game for \$3, flat, And, for a while at least, subscribers will get their games first class. Back issues, posters, etc., will still go out by second or third class. Eventually (especially if nostal rates so up) we may drop back to third-class postage to subscribers, with an option to pay a little extra and get first-class postage, I can't make any long-term promises; postal rates are unreliable,

Demon Poster

We've had a supply of posters printed up, showing the "demon-summoning" picture from TSG 28 . . . but BIG. These are 17" x 22" - and they look GOOD You can order these for \$1.50 each, plus 25 cents postage (50 cents for first class. or free postage for subscribers). Or . . .

you can set one free. If you take a look at the cards bound in this issue, you'll see that one of them makes a free offer. We're trying to build up our mailing list of retail game stores. Send us the address(es) of your local same retailer(s). Anyone who provides us with a new store name will set a

poster, free, Check the card for details. Credit Purchases

You've probably noticed that our order forms now allow credit-card nurchases on either MasterCard or Visa. It's an experiment. We know not everyone has a credit card; still, some people prefer to use them. It's a lot faster to write down your credit card number than it is to dig out the checkbook. One request: please don't use your card for purchases of less than \$10. There's just too much paperwork.

-Steve Jackson

ADVERTISERS

Attack International 16 Automated Simulations 19 Martian Metals back cover Metagaming . . . inside front cover, 29 SPI mailer inside back cover Steve Jackson Games, . . . 3: Inside back cover Task Force Games maller back cover

GAME MASTER

GAME MASTER exists to enswer our on your fevorite games. If you have a rules question or play problem, send it in. Questions to be answered will be chosen on the basis of general interest. They will first be referred to the same publisher or designer, If no response is received. GAME MASTER will offer its own interpretation of the rule. Sorry - no individual

GAME MASTER also invites publishers to send errete or clarifloations for their new sames. They will be printed as space allows.

I just aboved Kurer Fix 2100 and found it to be quite enjoyable . . . however, Arnie Goldman just doesn't out it as a name for a martial artist. Back to the game itself . . . one part I found hard to swallow is the relative lack of power of suns, I think 1-5 on the "gun vs. inactive" and 1-2 on the "gun vs. Monkey Soul" table would be more accurate. Perhaps this

could be another ontional rule to adjust play There are a few questions I have on the (1) Rule 6.1a states that fellies may only be

set up in a room or hall with a "I" in it. Once released, can they go anywhere or are they still limited to a mom with a "F"? What about servents and technicians? Also, should the loos and the lab access consider have any letters in

(2) Can a Terminator exit a loo occupied by a CloneMaster figure? On the whole, I liked this come and would

enjoy steing supplementary material on it in future issues. I also would like to see more complete games. Just make sure they are really games and not many. Ske Tarters & Martyrs. mes and not merely half thought-out ideas

Thanks for the comments. As you can see in Where We're Going, KF2100 is now available as a separate game - mostly due to praise from the people who played it. And your ourstions (and those of several others) led to clarifications

Armie is nartially for comic relief - but efter

all nor all martial artists are Oriental, or even want to be! As to suns: this is a same about people who fight so well that they make runs look almost

useless. But you're right: making the guns more powerful would be an easy way to adjust play belonce in the CloneMatter's favor, if necessary, To answer your rules questions: (1) Any figure can move to any square once released. regardless of the letters in the corner. They affect set-up ONLY. The loos and lab access corridor have no letters because no floures may be set up there - all those spaces are adjacent to doors, and a figure cannot start next to a

(2) Yet a Terminator can exit a log norm pied by an enemy figure, However, if the enemy is a Jelly the Terminator must have enough extra movement to pass by him

-Steve Jeckson

A couple of questions about Starfleet Battlez (Task Force Cames): (1) If a ship starte with one warn enrich

is it affected by left and right warp engine hits! (2) The warn enrines of the Tholian Patrol Cruiser are not marked as left, right, and center. What are their classifications for hit determin-

ation merceses?

-Farl S. Cooley III

It looks as though both questions boil down to the same one: How should wern enrines he decignated when no left/right/center decie. notions appear on the ship diagram? Several of the Starffeet Battles diagrams show ships with one or more wern engines but no little design nations. The easiest way out (and the one most in keeping with the same system) would be to write in decignations and stick to them If a ship has only one engine, that engine can be assumed to be "center," If it has two, one is left, one is right. If it has three, they are left, center, and right. I don't think that anything else makes much sense. If, for instance, a ship with only one worp engine is affected by ANY "warp engine" hit, then its single small engine is somehow more exposed than either of the big engines of a cruiser. -Steve Jackson

RETAILERS AND DISTRIBUTORS

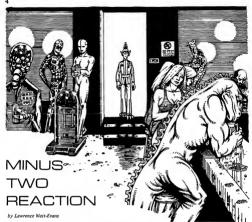
-Paul Laferriere

Three games and one set of miniatures - each retailing for \$3 - are now available from Steve Jackson Games. For details about these products, see the advertisement on the Inside back cover of this magazine.

Also available are back issues of THE SPACE GAMER. numbers 15 through 31, and a 17" x 22" full-color poster (The Demon) from TSG 28.

For wholesale terms and a free copy of the Demon poster, write: Steve Jackson Games

Ray 18957 Austin. TX 78760



Hanging half a meter from the top of the glossy black facade, glittering stadust spelled THE ORIGINAL OLD-TIME JOE'S BAR & GRILL; below, fire fuzzy edged spots of depolarized transparency chased one another scross the surface, giving passerby tantalizing glimpses of the dim, red-lit interior. Xahh paused and pererd longings'. The nuddy warm glow was painfully reminiscent of his far-off home.

Varkles, he thought, why nos? He wan't due back aboard ship for five hours, and the door stood invitingly ajar just a meter away. He'd never been in a joint like this before, and had heard discouraging tales of the hazards, but that friendly glow made him dismiss such stories as xenophoble fabrications. The

stones as xenophooic nanications, the door swung open as he approached. The place was bigger inside than he had expected; one wall was covered with game-machines, half the opposite wall with dispensers, and the remainder by a huse, old-fashioned wood bar with ornate brass and crystal trim. The rear wall was totally invisible, lost in the smoke and darkness. Close at hand there reared up a large brass serpent, polished to a ruddy gold in the crimson gloom. Where its snout should have ended in a pair of slit nostrils, there were instead three upward-curving horns, each capped by a solid brass ball, and its mouth gaped open impossibly. A sniff in its direction told Xahh's sensitive nose that it was dispensing pure oxygen, for those who chose to start the evening's intoxication

Psychbeat music filled the room, blending subtly with the hum of conversation from the two dozen occupied tables. Xahh relaxed as its poothing ef-

with an oxygen iag.

fects reached him, and crossed to the bar. Clambering awkwardly onto an empty stool, he glanced around at the other patrons and waited for the bartender to notice him

To one side were three unoccupied seats and the end of the bar; to the other side a single stool separated him from an immense green lizard-creature, looking almost black in the red light, which sat contemplating a half-empty glass of some viscous purple fluid, Beyond it - or probably him, but Xahh was uncertain were arrayed three identical young purehuman women, presumably free clones. sniffing cocaine. They struck Xahh as being misshapen, with far more chest than seemed reasonable. There was a gan after them; at the far end of the bar there sat a withered old man with chocolate-brown skin, wearing a tattered and

archaic pressure suit but no belong The "Hey Shorty " bartender was talking to him, though

Xahh couldn't hear a thing at that distance. Behind him sat a representative sampling of the port's groundling population: naked loading androids, human administrators in uniform, gleaming metal mobile A.I., inhumanly graceful cyborgs, and all the other specialized or numbred people that one found in Terra's

preatest starport.

"What'll it be?" The bartender's voice startled him. distracted as he was by his study of the bar's patrons. He turned back around and said, "Ah, whisky and water, please." It was the only local drink he was familiar with; he had been too timid to do much adventuring in his brief stay on Terra, but one of the old hands amone his crewmates had introduced him to this concoction that was both cool and fiery at once. It didn't have that same intoxicating effect on him that it did on humans, but a few of them would give him a slight feeling of cuphoria

He had only seen the bartender reach below the counter, without mixing anything, but here his drink was. Obviously an automatic drink dispenser was at work. Some "old-time authenticity"! He barely restrained a snort as he handed the bartender his credit card, Well, at least they had a human hartender; most hars had cone completely modern.

Assuming, that is, that the bartender was human. Xahh peered at him suspiciously, but couldn't decide. There were no visible signs that the bartender was anything but pure, but they made convincing cybers and androids of even his own small people these days; a thing the size of that hartender, a nortly two meters tall, could hold any intelligence around with room to spare.

The man, if he was a man, returned the card, and Xahh restrained another snort as he saw his new balance registered on the display. At these prices they could sure afford a human! Tucking the card away, he sipped his drink, and was pleasantly surprised; it was good, almost worth what it cost. Whatever else they might stint, the bar's owners didn't scrime on their booze. No wonder it was a popular local hangout.

He sipped again, and glanced up at the mirror behind the bar. His eyes met the reflected gaze of the lizard-thing, who seemed to be blearily studying Xahh's image. Xahh turned away, looking instead at a cobwebbed bottle below the mirror, as the stories of beatings and robberies at these dives came back to him.

The unsteady voice came from the lizard-creature who was now studying Xahh himself rather than his reflection

"Yeah?" He honed his voice didn't give away his nervousness. "You new 'round here?"

"Passing through," "Oh" The owen creature turned back to his numbe goo long enough to suck up some through a hollow tongue, then went

on, "Wa's ver name?" "Xahh.

"Kha?" "Close enough; Xahh," "Khah, right, Please t'meet yer. I'm

called Argonath; Argo for short." Xahh nodded nolltely.

"Gonna be 'round lone? "No. my ship leaves tonight." "Ship? Oh, Never ridden one, my-

self." That caught Xahh by surprise; his crest twitched as he took another sip of his drink. He looked up at the creature "You're from around here?"

"Yeah. From the plant down the road." Holding its drink in one threeclawed hand, it motioned vaguely with the other, then hiccupped; Xahh saw sparks scattering from the thing's mouth. He would have liked to dismiss it as an illusion, but he couldn't imagine why he might be hallucinating. Had he gotten the wrone drink? Maybe whicky had effects he hadn't noticed before.

He said, "Oh," and took another rulo of whisky and water. "Yeah, I'm a, I'm . . . " The creature tittered drunkenly, then abruptly stopped and whined, "I'm a factory reject, tha's what I am. S'posed to be a dragon, for some entertainmen' or somethin', but I

didn' come out like they wanted." "Too had." Xahh was honestly touched by the creature's pitiful expression, but he was also increasingly nervous of his own safety.

"Where you from?" Xahh shrugged, "Nowhere special,"

"Ah, c'mon; you sure aren't a pureheed you must be from somewhere "I'm second pilot on a starship." "Oh, so the's why yer so small! Save

weight!" Xahh nodded.

"Where v' from originally?" Xahh could smell the creature's acrid breath: It was leaning toward him, and he knew he couldn't avoid answering much longer. He considered lying, but he knew he wouldn't. It would be worse to be caught in a lie than to admit the touth and he didn't know enough terrestrial geography to lie convincingly.

"Arcturus III." "Arc . . ?" The dragon-thing sat up straight. "You're an alien?"

"Yesh." He might brazen it out vet. he thought

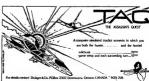
"An ALIEN?! In Joe's Bar?" He wasn't going to get away with it, he knew. With a gulp, he finished his drink,

as conversation died and the occupants of the har all began to stare in his direction. One of the big-chested clones pulled a needlesun from somewhere, and leaned nast the dragon toward him, weapoo raised and pointing at the mirrored ceiling. The dragon itself was still too astonished to do much but gape. She said nothing, merely glared, letting the weapon speak for itself "Hey, huddy, this is a nice joint," It

was a naked, sexless android that spoke, "Yeah, we don't need you here," said a elittering, golden cyborg, "This is a Terran bar, freak." The

monotone voice came from the wheeled hox of a cryopenic artificial. "An alien!" The dragon still gaped.

Xahh knew when he wasn't wanted: he slipped from his stool and walked, with all the dignified calm he could manage, out the door. Behind him he heard a clone saying, "Damn foreigners! C'mon, Argo, I'll buy you a drink."





Where are the aliens?

Everyone who plays Traveller must wonder about that. Where are the Vulcans and Wookies and other creatures that enrich science fiction? Everyone is so depressingly human. Where there is a role for an alien, as in Azhanti High Lightning, the game treats him much like a funny-looking human.

GDW, in its wisdom, will doubtless give us some aliens in due course. For those who do not care to wait, I would like to offer some guidelines for creating alternate character.

Character Types

Alternate characters may belong to one of a number of categories:

Alternative Non-humaniti, like the Vargr, and Humaniti subspecies, like the Zhodani, may be included under this heading. Aliens have little in common but they

diversity Cyborgs. On some high-population worlds, it is common for parents to pay for modifications to their children, in order to improve their chances of finding employment in adulthood, Cyborgs differ from other characters in that they have prosthetics which may give them higher effective strength or intelligence, or special abilities, but usually handican them in some way. Basically, a cyborg can have any of the features of a robot except programming. Cyborgs may be high or low in social standing, depending on the profession for which their modifications were intended.

fleations were intended. Androids. Artificial people. They require some special comments. They are created on high-technology, low population worlds to supplement the multitary or labor force. Androids are organic constructs, not robots. They cannot be

Alternate Characters for TRAVELLER

by Forrest Johnson

programmed. In common practice, an android owes its creator twelve years of service. Then it is free. At best an imperfect substitute for a human, an android ages ("wears out") somewhat faster. This factor is offset by intensive development and training, an android's effective career is user as lower.

Shart an android character at "age 18." (fit treat age in much lower), Give and same enistment roll as everyone clae. (This represents the probability it was crerated). As android will serve there existed in stated), As android will serve there exist a stated of the work for which it was cretial trems. (It does not need to make a re-enistment roll.) As android my cretimate to some in its profession beyond age and the contraction of the contraction of the office of the contraction of the contraction of the roll. Check for age as humans, Androids are usually of low exold states.

Robots. Really machines, rather than characters. They have been discussed in The Journal of the Travellers' Aid Society. I have nothing to add.

Designing Characters

The average dice roll for a Traveller character is 7. Hence, the average total of the six characteristics is 42. The GM may allow any character type he wishes, but to be fair, he should make sure that the average probable value of its total characteristics equals 42.

Since 2d6 is worth an average of 7 points, it follows that 2d6+1 is worth 8; 1d6, 34%; 1d6+1, 44%, and so on. One could go farther, and allow 1d3 to be worth 2 points, or 1d5 to be worth 3. For purposes of this article, we will stick to six-sided dice as a basis for character generation.

Since characteristics are supposed to range between 1 and 15, die rolls are limited. A roll of 1d6-1 might result in zero. 2d6+4 might result in a characteristic of 16. Therefore, we are limited to a range of die rolls between 1d6 and 2d6+3.

Example

A player wishes to create a character who is a Vulcan. The GM decides that Vulcans are stronger, smarter, and more dextrous than humans. On the other hand they are likely to have difficulty if they try to establish themselves in human society. A Vulcan might be rolled up like

Strength 2d6+1 (8 pts.) Dexterity 2d6+1 (8 pts.) Endurance 2d6 (7 pts.) Intelligence 2d6+1 (8 pts.) Education 2d6 (7 pts.)

Social Standing 1d6 (3% pts.) (Total: 41% pts.) Looking at his creation, the GM thinks 41% points is a very untidy figure. Besides, he has not allowed points for

41½ points is a very untidy figure.

Besides, he has not allowed points for special Vulcan abilities — the Mind Lock and the Nerve Pinch.

Consulting the basic books, he decides

Companing the date comes, for excess the value of contract of the contract of

(Note that the 42-point total is only the expected awarge of the die rolls you make to create the character. Once the die rolls are made, your alien may have a high or low total, just like my human character . . . but the average alien should have about 42 points.)

Special Features

As you may have gathered from the example, alternate characters may have special features, which should be evaluated and subtracted from the 42-coint

7

total, GMs should be most cautious about which abilities to grant, and at what note. Some examples:

1-point features — gills, nocturnal vision, claws, epidermis equivalent to jack, or aging delayed 2 years.

2-point features — extra limb, immunity to tainted air, stinger, epidermis equivalent to mesh, or aging delayed 4 years. 3-point features—neronal anti-emit-

3-point features — personal antigravity vacc suit, thrasher, epidermis equivalent to cloth, or aging delayed 6 years.

Obviously this can get pretty expensive. To put things in perspective, remember that an ordinary man, with his full 42 points and a few thousand credits worth of equipment, can outperform a superandroid with a bushel of built-in features.

Special Handicaps

In order to increase its 42 points, the GM may gift an alternate character with

some special handicaps. Special features subtract from the available points; special handicaps add. Some samples:

1-point handicaps — colorblind, flabby (+1 to be hit), spindly (takes +1 damage per hit), cannot use human druss, or ages

2 years earlier than normal.

2 point handicaps — smelly (-1 to all reaction rolls), neurotic (becomes hysterical in the presence of large invertebrates), requires special food or frequent recharging, or nees 4 years earlier than

normal.

3-point handicaps — unable to speak
a human language, no immunity to
mitrobes (away from home planet),
collapses under gravity of worlds size 7

and up, or ages 6 years earlier then normal. Another Example

Military Service Android Strength 2d6+2 (9 pts.) Dexterity 2d6+2 (9 pts.) Endurance 2d6+2 (9 pts.) Intelligence 2d6-1 (6 pts.) Education 1d6 (3½ pts.) Social Standing 1d6 (3½ pts.)

(Total: 40 pts.) Special Features: two extra arms (4 pts.) Special Handicaps: begins aging at 30

(2 pts.) Comments: cheap, expendable, deadly in combat.

A Final Example

The Arcturan
Strength 1d6+1 (4½ pts.)
Dexterity 2d6+3 (10 pts.)
Endurance 1d6+1 (4½ pts.)

Intelligence 2d6+1 (8 pts.) Education 2d6 (7 pts.) Social Standing 2d6 (7 pts.)

(Total: 41 pts.)
Special Features: sensitive nose (1 pt.)
Special Handicaps: none, except pos-

secial Features: sensitive nose (1 pt.) secial Handicaps: none, except possibly a tendency to go slumming (0 pts.)

Comments: a race well adapted to space travel. (Note that Xahh, in the story, did not receive his bad reaction through any fault or unpleasant characteristic of his own. The people in Joe's Bar just didn't like aliens.)

connon don't blame mel

Playing Alternate Characters
This takes discretion. One or two alternate characters in a party add interest.
Twice as many are not twice as good.
Until GDW sets some standards, each
GM must decide for himself what kind of
characters he will allow in his universe.
If the GM won't let you play your bait
lea-amonder (volvor with the bulktin auto

TSG BACK ISSUES

Dld you miss an article you wanted to read? Some back issues of TSG are still available:

No. 15. Wizard and Olympica designer intros; Robotics in Traveller; Floating Huiks; Ogre Update; Orcs and their Weapons; computer gaming.

No. 16. WarpWar article; Classics Simulated in Melec; Alpha Omega; Demons! (Moties in Melec); 1977 game survey results — and a LOT of review.

No. 17. GEV designer's intro; strategy for Chitin: I; variants for Imperium, Melce, and a combination Ogre/Rivets straint, WarpWar fiction.

No. 18. IceWar designer's intro; variant secondos for Invasion: America and War of the

Ring; additional equipment for Traveller; mounted Mele; "Referet, Declare Thyself" (role-playing CM mechanique).

No. 19. POND WAR: variant units and scenarios for GEV; combining Imperium and

WarpWarp, wassest writts and scenarios for GEV; combining Imperium and WarpWarp. Bettleffeet Mars starbart, reviews of Swords & Society, Runcquest, and Rusumkries; MicroGune design article.

No. 20. Obversion tactice: Pisonics in Traveller: TARTARS & MARTYRS: Reality in

Melen; designer's optional rules for Ico War; designer's article on Starthlys & Specemen; "Rip-Off Blues" (wargaring frauds).
No. 21. Instructive with Dere Ameson; running a MicroCame tournament; tactics for

Ope and GEV; spaceship ministrues; Black Hole verlant roles, putting the Derynl into Meles; more reviews.

No. 22. Ice War tactics; Black Hole physics; PARTY BRAWL; 1978 SF/lantasy pame servey steells: Fastary Tip short story.

No. 23. Invasion of the Air Enters designer's article; Ogre meets Ice War; Sticks & Stones expansion; Vikings and Valde in The Fantasy Trip.

No. 24. Black Hole designer's intro; "The Psychology of Wargaming"; Naval Melec;

"The Four-Howitzer Defense in Oger"; variants for Châtin: I, The Creature that Ate Sheboygan, and John Carter of Mass.

No. 25. Stellar Conquest issue ... designer's article, tournament tacties, and variant sonarios. Also — strategy in Rivets; benefit-cost analysis for low War: "Everyday Life

In The Fantary Trip."

No. 26. One-world designer's instruct tection in GEV; variations on Wizard; computers in wargaming; Life-sized Meloc; and a variant that puts busman forces into Rivets.

No. 27. Hot Spor's designer's intro; Time Travel; Nuks the Air Eaters (earning atomic

war); Weapons for Hobblis in TFT; Muskets in TFT; Game Design Part 1; 5 pages of game reviews.

No. 28, 1979 Game Survey results; Overmen in TFT; A Guide to SF/Fantasv Game Pub-

Babers: Task Fooce Games report: Writers' and Artists' guides; 7 pages of reviews; Game Design Part 2: Dous Ex Mechain. No. 29. Fantasy Trip designer's intro; Palanting Fantasy Miniatures; Fantasy and SF game

magazines surveyed; Game Design Part 3; more Dess Ex Machies; 7 pages of reviews, No. KUNG FU 2100; Painting Fantary Ministures Pari 1]; Index to Game Articles; Game Design Part 4; Programmable Calculations; 10 pages of prefere.

No. 31. "Sam Brownil"; 1980 Game Software survey: Game Design Part 5; Random Mans Generation; 9 pages of reviews.

No. 32. Traveller insur . . Alternate Character Types, reviews of play sids, scenarios, and variants; also Game Design Part 6; Dess Ex Machina; "Minus Two Reaction"; software servey update; Yapatino Games reports; 8 pages of reviews.

Send \$2.00 per copy, plus 50 cents per order for postage and handling, to TSG, Box 18805, Austin, TX 78760.

If you are a TSG subscriber, you can get discounts on back issues. Use the order form on the mailer cover of your subscription copy.



EXPANDING TRAVFILER



Traveller GDW's science fiction toleplaying game, is a system that cries out for expansion. Its limits are as indefinite as the reaches of outer space that serve as its background. In the past several months a number of sumine companies

and groups (not to mention GDW itself) have heeded this cry and have issued what is rapidly becoming a flood of supplements, adventures, and play aids (shades of D&D!). Among the best of these Traveller expansion materials are those of Judges Guild, all approved by GDW and entitled to the term "official" Terreller variants. In the following paragraphs we will briefly review a number of Traveller offerings.

ACROSS THE BRIGHT FACE/MISSION ON MITHRIL. Traveller Double Adventure 2 (For Referees Only), (GDW): \$4.98. Designed

by Marc Miller, 9" x 6" 44-pure booklet. One referee and two to eight players; playing time indefinite. Published 1980. Cross-country adventure is the theme of

Traveller Double Adventure 2, Whereas Double Adventure 1 took players inside two large alien structures. ACROSS THE BRIGHT FACE MISSION ON MITHRIL takes place mostly in the open, pitting adventurers against the elements as they cross the Bright Face of Dinom or the frozen surface of Mithril in the Sword Worlds. Although similar on the surface, each adventure is varied enough so that there will be no feelings of deje zu when playing the second of the two scenarios, BRIGHT FACE features the players as bodyguards whose patron has been murdered in a miners' revolution and who must social both nursuing miners and treacherous terrain to reach safety at the spaceport. MITHRIL concerns a mapping survey of three anomalous spots on the planet that the characters must conduct in exchange for vital repairs on their ship. Both scenarios require only the basic Treveller books and each provides a set of pre-generated characters and new, special equipment - including the heretofore absent laser pistol. Introductory sections describe each planet (with full-page maps) and the background situation for the players. Specific terrain and event tables are provided for the referce, MITHRIL also features special animal encounter tables for peculiar planetary fauna and weather tables to reflect changing meteocological conditions. Stats for the use, operation, and administration of the Horronon tracked ATV used in both scenarios are located at the end of BRIGHT FACE. Either scenario will guarantee plenty of excitement for player and referre alike.

Several features of BRIGHT FACE/MITH-RIL are of note, particularly the upgrading of vacc suits to the equivalent of cloth armot rather than the almost worthless tack armor. which usually snelt certain doom for any vaccunited character fired on. Also, it is interesting to note that the pre-ecnerated characters for MITHRIL are the same as those used in Shadows and, with one exception, Research Station Gamma, making it quite simple to string the three into a continuous adventure-to-adventure

campairn I find limit of which to complain in this double adventure. There is some uncertainty involved with MITHRII's weather table and the appearance of the ephemeral glades, and provisions for the monoral mentioned in BRIGHT FACE seem to be missing, but generally both adventures are quite well done

All in all, ACROSS THE BRIGHT FACE/ MISSION ON MITHRIT will prope to be a beleful addition to the collection of any Trapeller referen - and player.

- William A. Borton

DRA'K'NE STATION (Judges Guild): \$4.95. Designed by Bill Paley, Adventure approved for use with Traveller, One 60-page 8%" x 11" booklet. For two or more players: playing time Indefinite Published 1979

Picture an alien research station constructed in the center of a hure asteroid, two miles long by half a mile thick, armed with anti-matter guns, defended by laser-equipped security sobots, shock traps, and - possibly - survivors of a long-dead reptilian race and fully equipped with technological devices of an unknown nature. Now picture yourself enterine this station, either out of necessity or just curiosity. There are award ove names shoul this adventure, perhaps one of the most interesting Traveller scenarios yet released by anyone, Farst is the completeness of detail. All twelve levels of DRA'K'NE STATION are completely mapped out in typical Judges Guild fashion. leaving no room for ambiguity - yet leaving enough features to chance or the referen's discretion (whether or not certain systems are still working, if there are any living Dra'k'ne aboard, etc.) to keep the adventure fresh and interesting every step of the way. I particularly like the "Table for Describing Indescribable Knick-Knacks" that may be found in individ-ual Dra'k'ne staterooms. The Dra'k'ne themselves are an intriguing race; more so, I'm afraid, than the few aliens GDW has allowed so far to trickle into Traveller. The possibility left open for some of the players to take the part of defendanc Dealk'ine against the adventurers should not be overlooked. The anti-matter weapon found on the station is a worthy - and ouste lethal - addition to Traveller's assenal of ship-to-ship weaponry, though referees should be cautious about letting it fall into the hands of over-regious players (the sort that want to overthrow the Imperium) - it could unbalance your campaign drastically (Poof)

Your battle cruiser just disappeared?). The only minor flaw I see in the whole sornario is the leneth of time it will take the anothing smally useful from its research should they manage to survive that long. But seein this is a minor complaint and shouldn't spoil the overall entoyment of the rame Bringing things to a close, I recommend DRA'K'NE STATION as well worth the investment for any Traveller afficionado who wants a challenging adventure and who doesn't mind

adventurers to solver the station and to learn

the possibility of losine a character or two in the process I look forward to Judges Guild's - William A Borton

FICTIONEERS (Stan Johanson Ministerer) \$3.00. 25mm science fiction figures and accessories for wargames, Released 1979-80 This line of figures is suitable for use with Tempiler and other set sames. The sample rock I have been as an especially nice one - a set of 6 computers and instrument banks very "Star Trek"-looking. Could be useful for the dioramist or last for the sames who likes a control room to look real. The \$3 price isn't unreason-

next offeries

able for this amount of lead. Detail is forely good: quality control high (no flash visible anywhere! My only criticism is that some of the nieces must be handled very carefully once assembled or you'll be re-cluing them every game.

Recommended for s-f miniatures play -Steve Jackson

MINIATTIRES FOR TRAVELLER (Mar. tian Metalsh: \$2.95/set. Twelve 15mm figures per set (except for the aliens set, which contains ten figures). Released 1980. Nine sets are currently available - adventur-

ers (2 sets), soldiers (3 sets), thugs, robots, Varez, and aliens, Figures range from Buck Ropers-style to creatures from the movie Allen. Almost all are armed. There is some duplication within each set, except for the adventurers, who are all different. These figures go well with the game, A few

sets are all you need to play Snapshot or Azheart High Lightning The ministers fit with, out too much crowding on a half-inch grid. The detail a nice and the variety is entertacular Unfortunately, buyers will find a speckling of the usual problems - flimsy weapons, madequate bases, mold marks, and so on. Not too bad. Most of the figures are OK; the rest can he redressed. More seriously a lot of the firuses are spread-earled with the arms away from the hody. Fasy to cast but they look dumb. and cunnot always he bent into shape without cracking the lead

The selection is good, but not perfect. Some of the robots might be used with Research Stetion Gemme and three of the aliens are suitable for Shadows. (There is however, nothing resembling a chirper.) There is a set of Varer. but no Vacer among the adventurors. There is a Zhodani amone the adventurers, but not (yet) All in all, a B plus effort, Recommended

to Traveller fans and SF miniatures samers in -Forest Johnson





THANK YOU

H.G. Wells Awards

System 7 Napoleonics

Best Historical Figure Series

System 7 Napoleonics Rules
Best Miniatures Rules

Kinunir, Adventure One for Traveller Best Role-Planing Adventure

The Journal of the Travellers' Aid Society

Best Professional Role-Playing Magazine

Game Designers' Guild Awards

Double Star Guild Select Award

Bloodtree Rebellion Guild Select Award

White Death

Guild Select Award

Road to the Rhine Guild Select Award

Fire & Movement Readers' Poll Awards

White Death Best Operational Game

Road to the Rhine Best Strategic Game and Best Game of the Year

> Frank Chadwick Designer of the Year

Thank you to all the gamers who have made GDW games so popular. And thank you to all the gamers whose satisfaction earned GDW the awards isstend above at Origins 1980. Look for these future award winners from GDW your favorite local hobby or game shop in the near future:

Athant I find Lighting — The Fall of France - Asteroid "Twildint's Peak - Assault - Tacforce

Game Designers' Workshop

SCIENCE FICTION GAMES—SYSTEM 7 NAPOLEONICS

PEN-LATOL'S WORLD (Group One); \$7.95. Approved for use with Traveller. One 32-page mimeographed 8½" x 11" booklet, 23" x 34" map, cover sheet, bagged. One seferos and 7-12 players; playing time indefinite, Published 198

Published by an apparently new company PENJ ATOL'S WORLD is an annowed adventure for Tenseller And If nothing else, the designers of this adventure are most ambitious. PENJATOL'S WORLD concerns the adventures of a scientific/minine team on the aforementioned world. It seems to encompass the entire planet in its scope including a complete aljon society, most of the planet's biosphere and the customacy ruins of a lost civilization, now degenerated into barbarism. This time it is an abundaned city and an ancient planetary defense fortress situated inside a mountain both well stocked with depersons animals. A large though Gimsy man illustrates the major nimetary terrain features for the numoses of cross-country travel.

The most notable facet of PEN-LATOLS. WORLD is its allen race, the Creativar. Group One has created in these six-limbed beings a faciating of Hisporobable—allen noe (though testinating of Hisporobable). Allen noe (though testinating of E.R. Burrough! Alen Carter testing. Unfortunative, the Classificar aren't quite alain enough. A highly prionic human size countly have street [9] just a well. It's a good try, however, and perhaps one that will lead to more allens is Parelle, h. any exam, bee more allens in Parelle, h. any exam,

The mint weakness of FEN-LATOLS. WORLD is that most of specars to have been a laterinator trush [sol. An absordance of types as leaders the rush booked and numerous considerate the number looked and numerous consideration of the sale of the laterial trustance and the laterial trustance and the laterial trustance and the laterial trustance and the laterial maps in soften difficult to corollate the number many laterial trustance and the laterial maps in soften difficult to corollate the number many laterial trustance and the laterial trustance and the laterial trustance and the laterial trustance and the laterial trustance and have been described and the laterial trustance and trustance and the laterial trustance and trustance

All in all, however, Group One deserves a "GT" (for "Good Try") rating on this offering. Their next attempt should be preity good. Considering the price and the game's incompleteness, though, I'd have to recommend it only to those who don't mind filling in a lot of gaps. For such highly imaginative games, PEN-LATOL'S WORLD will provide a wealth of daving situations for any Trendler came of daving situations for any Trendler came.

paien.

– William Berton

\$3,00, Designed by Donald P. Rupp. Approved for use with Travellik. One 10-pgs 50% x 8" booklet and 11" x 17" insert. Number of player and playing fine variable. Published 1980. For those Travellier players who have warded contenting more "Official" than the variants that have appeared in The Degon and elsewhere, Paranole Press has produced a Threeffer supplement that should fill their long-ing— and more. SCUUTS & ASSASINS and only features an expanded Mercany-type vice, but includes rules for cast and the content of the product of the content of the product of the prod

SCOUTS AND ASSASSING (Paramoio Press):

new class of character - the assassin. In addition, this size but meaty booklet contains a method for non-violenthy disposing of a character who fails to make his survival roll, but who is too good a character to be killed off, and an

is too good a character to be killed off, and an insert page with technical data and deck plans for the Serpent class scout ship, completely compatible with Spanishor.

SCOUTS AND ASSASSING designer Donals Rop is no noise to Presider, his Septendas soon they was fearned in The Journal of June 200 and the June 200 and Ju

ling groups of scord ships, Endisting your character into the League of Anazatins will prove most exciting — and dangrouns (purvise) roll in ones higher than that for crounts — and will yield a formidable character combat, stealin, and disgoint. He may even be awarded membership in the Assassins' Guidle And the Ulaffi for Service table was just made for the Twenther player who can't stand to see character his newest through so much die on the character his newest through so much die on

The only problem I have with SCOUTS & ASSASSINS is that, even with the instructions, someone who is not familiar with Mercanary may experience some difficulty in following this system. This should, of course, he no trouble to an experienced player. The Unit for Service section is also unclear as to whether discharged characters still receive mustering out benefits, no physers will have to decide this on

their own,
Until GDW publishes their own, if you
want an "official" scout system, SCOUTS &
ASSASSINS is it.

- William A. Barton

SPACEFARER'S GUIDE TO PLANETS. SECTOR ONE (Phoenix Ginnet); \$8.00 chings of Section Se

nearly all your favorite planets from science fiction literature, from Suzette Elgin's Abba to Lin Carter's Zha, from Frank Herbert's Arrakis to Issue Asimov's Terminus, all couched in gaming terms so that they can be easily inserted into any campuisn. Now your characters can tread the sands of Dune, fight the gravity of Mesklin, or brave the wrath of the Deathworld, Pyrrus, And, in addition to the planetary descriptions, SECTOR ONE includes encounter charts to determine if your spacecraft might have a run-in with a ship from any of these worlds and star system generation tables that allow the referee to determine not only planetary characteristics, but star types, number of planets per system, moons per planet and whether or not the system has any "special" features such as black holes, Ringworlds, or Dyson Spheres.

Without question, SECTOR (NIE is a study in completeness. Each place little of in the book in thoroughly described with notes on physical analyses, the mentality of the dominant pace, and the study of the dominant pace, and the study of the dominant pace, and the study of the dominant pace of the study of the study

trouble gitting the field of whatever planet they find themselves often criderat with SECTOR. The only problem criderat with SECTOR and the problem criderat with SECTOR and the problem critical problem critical

SPACEFARER'S GUIDE TO PLANETS: SECTOR ONE should prove a valuable play aid in the hands of any creative referee. — Willem A. Barton

STARSHPS & SPACECRAFT (Judges collidity 53-00 hosping by Dave Serine, Playing and approved for use with Traveller. Three Day to every worder text by what 1 Type S Soots this looked like? Or what shape a Type S Soots this looked like? Or what shape a Type S Soots this looked like? Or what shape a Type S Soots this looked like? Or what shape a Type S to the shape of the literator of the shape a Type S Soots this looked like? Or what shape a Type S Soots the literator what I Type I T

data, and summary sheets of all the standard vyers of starships and savellary critical time for the standard starships. One side of each form of the standard starships of the standard standard

one side and, on the other, deck plans (in black and blut only) and a large half-inch-sugged grid so that you can design your own ships should you wish.

The size of the deck plan grid is such that the plans are completely composible with Saup-

shor (Traveller Game 2) and thus can be invalushle as an expansion set for that same increase ing their worth beyond their visual use in Treveller Itself. And the designer of STARSHIPS & SPACECRAFT is to be congratulated for avoidine the ton-common error of back-printing plans with data. The plans for any particular ship are on one sheet and the data for that ship is on the other, making reference possible without disrupting any on-board situation you've set up with counters or miniatures. Another nice touch of realism on these plans is the existence of "freshers" aboard each ship, laid out in convenient locations. I'd always wondered if one was just expected to climinate wastes out the airlock, or wait until the next interstellar rest stop (outh!) Now we know.

The only omissions I can find in STARor SHIPS & SPACECRAFT is a lack of deck plans for the lifeboot, aze/raft and ATV pictured. Perhaps those will be included in the next such supplement, along with ships described in Citizens of the Imperium: the Cocsair, Sceker, Lab ship, and Safari chin

STARSHIPS & SPACECRAFT should prove quite beloful in making your Traveller campaign even more realistic to players. It descrives a place in your Traveller library.

- William A. Berton THE TRAVELLER LOCKOOK (Indees Guild): \$3.00, Designed by Dave Sering, Ap-

proved supplement to Traveller, One 62-oase 8½" x II" booklet, Published 1979 If you're one of those Traveller players who, as a hot-shot ex-Imperial Marine, has no trouble decimating whole planets with your handy PGMP-14 Plasma gun, yet find you constantly lose your best characters and your finare storobine when those loose shores of namer on which they're recorded seem to be with the solar wind," then rejoice! The LOG-BOOK contains printed record sheets on which

ou can los up to 10 characters with thou 11PPc skills, equipment, service records, names. ranks, etc. It also has summary sheets for six starships - including impressive ship's papers. and, in addition, nearly all the useful charts needed to generate Traveller characters from Books 1.3 and from Messenson for the player's venience. Not bed for \$3,00! In fact, the

LOGBOOK would make an excellent first purchase for that gamer who wants to try out the Traveller system without taking the full plunge of buying the game itself, (This is how I got my wife interested?)

Segreal additional fratures been the LOG-ROOK from being merely a digest of already released Traveller materials. There is a series of charts designed to fill in the personal background of Traveller characters from physical appearance tables, generating such characterlistics as height, weight, quality of sight, hearing and teste to social harkenound determinen including cultural motivation, number of parentr (from none up to 2 dire e 1) their overpations, family rank, reason for adventuring, and more! These can be quite helpful in creatine a character as a role to play, rather than as a mere extension of one's own personality. In its section on Starship Operation, the LOG-BOOK brings all the tables and information on starship expenses and revenue, including an easier-to-read trade and speculation table than

appeared in Traveller. On the negative side (alas, there usually is one), the LOGBOOK has no provisions on its record shorts for skills - ficet tactics, prayities, bow combat - listed in High Guard or Citizens of the Imperium making it necessary to nearly such in should you desire to roll up a character from either of these rule sets. Neither can you casily record a ship built with components listed in High Guard. There are no spaces for meson guns, or black

Overall. though, THE TRAVELLER LOG-BOOK is well worth the price. In fact, no serious Traveller player should be without one.

ITHILIEN CLASS - S-2233321-000000-00000-0

The Conundrum State Shipvards (Note that Stateroom 1 are nleased to announce the winner of can be used as an emergency the ship design contest (TSG 78) is Mar. intraship airlock if there is K. Chitt. formerly of the Imperial scouts. a loss of pressure either Of the 13 entries, his is not the most in the bridge or the crew original, but it is (1) commodious, (2) arra) well-equipped for its role as a deep exploration ship, and (3) cheap. As a special 1. Avionics sign of favor. Her Splendiference, the Im-2. Bridge peratrice Ithilien bestows her name upoo 3. Computer room the class. Chitt is instructed to report to 4. Fire control cabinet the shipyards, Day 300, 1067 P.S., for 5. Stateroom 1 the shakedown cruise of the prototype. 6 Statemon 7 io It is anticipated that ships of the Ithilico 7 Statemon 3 class will be available for sale to the 8 Common area nublic after the shinvard satisfies the 9 Shin's locker needs of the state. 10. Stateroom 4 Budget for the proposed ship class: 11. Stateroom 5 1 13 ITEM TONS COST 12. Cargo 150 ton buil 15 13. Port air lock Cone configuration 1.5 14. Air raft 12 4.5 18 Power plant 3 15. Purification plant 6 Jumn 3 24 16 Drive mom Maneuver 3 75 5.25 17. Access corridor Fuel purification 15 .13 18. Stem air lock Fuel scoops 15 19. Tankage 20 .75 Bridge 20. Drives Computer 2 .1 Hardpoint 20 2.5 5 staterooms 4 .6 Air raft Programs* 2.1 Cargo 70 16 Tankage 50 TOTALS 150 79.08

(All costs are given in millions of credits) *Programs: Jump 1 (.1), Jump 2 (.3), Jump 3 (.4), Maneuver (.1), Navigation

(.4), Auto/Evade (.5), Library (.3).





by William A. Barton

There was a small, metallic "click!" - more felt than heard - as the magnetic hoots of the Solomani's vacc suit made contact with the hull of the Bard Endeavour. Turning his head slightly, he was rewarded with the sight of the rest of his party touching down on the crippled Imperial warthin It would only take his team minutes to force open the doors into the hoat dock, he knew - and then what? He wondered if he'd live to see Old Terra again. It had to be done, though, The capture of such a ship as the Endeavour with its advanced weaponry could turn the tide of the war - could even make possible a Solomani victory and at last! - independence from the Empire.

The doors flew open. Bracing himself, the Solomani officer flung himself into the opening – for Solomani independence! – followed closely by his men. Into the withering fire of a dozen Imperial Marines.

Nobody ever promised that "Adventure About an Impedial Starkip" would be easy, But it can be challenging — and fine — with CDW's new Tweetler game, AZHANTI HIGH LIGHTNING, Designed to be easily integrated into the Tempeller tole-playing system, AHL is, neverthees, a fascinating game in itself. Even strick boardgame addicts who distain all forms of role-playing should find plenty to pique their interest abourd the High Lightning.

The first thing one notices when picking up this same is the beautiful cover painting of the Azhanti High Lightning herself — quite attractive, that? The second will be the \$22.00 price tag — ouch? And this on a box no bigger than that of Imperium? Best assured, it's worth it. Once you see the components, I think you'll agree.

The insides of AZHANTI consist of a sheet of 240 color-coded counters of Imperial crewmen and marines, intruders, adventurers, robots, Zhodani, the wolflike Vargr, plus alien blobs, wine (for one scenario) and wound markers; a combat chart: two full-sized dice (a relief after the miniscule dice some companies include); a 44-page rules booklet phrs a 44-page Traveller supplement (No. 5) on Liehtnine Class Chrisers: and 14 (count 'em - 141) sets of full-color deck plans of the various levels found on the Azhanti or her sisters (these alone are almost worth the price of the entire game). All components measure up to GDW's usual high standards of quality.

The deck plans, each representing exeral decks of the same type, are nicely done with details that include colorcoorded conduits, hatches and valves and even individual consoles and chairs on the various bridges and gumery decks. Each deck is laid out with a half-inch square grid, compatible with those of Turveller game 2, Suspirkor, and the Judges Guild Starships and Supercraft deck plans, to regulate the movement of the counters on of 15mm ministruse. All details and areas

on each deck are numbered and are explained in the "technical manual" section of the supplement.

The supplement itself, in addition to

containing the deck-by-deck breakdown containing the entire history of the Light-ning class, gives general specifications for the light-ning class, gives general specifications for the containing the c

The rules for AZHANTI are quite wellwritten with very few errors or ambiguities visible. They clearly set out all the general rules for play, the special rules and the advanced rules in such a manner that it isn't necessary to puzzle over them for several hours before figuring out how to play. All the rules are simple enough to understand - yet complex enough to add depth to the game. These rules take up the first two-thirds of the rules booklet, the final third consisting of ten different scenarios ranging from the Solomani attempt to take the Bard Endeavour at "The Battle of Kagukhasaggan 2" to a plan by mutineers to turn over the Oberlindes Lines transport Emissary to

the Varer Extents in "Brother Wolf." Guidelines are given for creating original scenarios, and instructions are added for converting the AZHANTI system into

Traveller and vice versa Some elitches did creen in. For example, there is some confusion in the rule on characters receiving collateral damage from explosions in their square. One sections says that all characters in the same square receive collateral damage if an explosion occurs in the square, and another says all characters in the same source receive collateral damage on a roll of 8 or more - unless they are specified as automatically suffering such (which according to the preceding section would be everybody - so why roll the die at all?). There is also some discrepancy between the rules and the counters on warbot weaponry. The rules state that warbots are armed with fusion mins the counters alsoma runs. Most of these flaws can be easily remedied by an agreement between

opponents. The AHL game system involves, like its predecessor, Snapshor, the use of Action Points, All actions on the part of a character - movement and combat are made through the expenditure of the character's Action Point allotment. Snapshot veterans, however, may not find it such a snap converting to AZHANTI. Action Point usages between the two

games are quite dissimilar. The game is liable to go pretty slow, at least the first fcw times played, due both to the necessity of keeping track of APs spent and to the numerous steps involved in each turn. These consist of a decision phase, in which each player secretly decides what each of his characters will do that turn, and five action phases for the character to carry out his "orders" Fach action phase consists of four sequential steps: covering fire, movement, aimed fire, snan shots. All action in a phase is otherwise simulataneous. The necessity of going through all these steps in each turn can make for slow going, especially in the scenarios involving large numbers of characters, and involves quite a bit of paper work. A game turn that represents only 15 seconds of same time could easily last several minutes of real time. Strangely enough, though, the system works, Once players get used to the game, it moves fairly smoothly, though not at breakneck speed. One great aid is that the AP costs for all actions are printed on a separate combat chart for easy reference, eliminating the need to leaf through the rules. as in Sounshot. The six AP per phase limit also alleviates such unrealistic occurencer as a character with high APs min. ning into a room of armed men, firing, and running out unscathed, as can hannen

in Snanchot The only real problem I see in the eame's sequence of play - other than its length - involves the rule that a character. once committed to one of three actions (cover fire, aim, or move) in the decision phase cannot switch to any other action (though he can make a snap shot or meles) even should conditions change and a new opportunity present itself. He can only abort and wait until the next turn. This seems just a bit unrealistic, though the character's ability to make a snap shot (if he has enough points) or initiate melee (no noint cost) does somewhat make up for this.

The combat system of AZHANTI HIGH LIGHTNING is the best feature of the same. In fact, GDW should seriously consider replacing the regular Traveller combat system with this or a similar system. Gone at last is the highly unrealistic concept of using armor as a determining factor in whether or not a target is hit (a legacy from D&D?) In AZHANTI, armor protects the tarret to a certain extent after he is hit, rather than making him harder to hit at all. Each weapon (guns only: blades and the like are strangely missing) is listed with an effective range, a long range and an extreme range, measured in squares on the deck plans. These ranges differ for each weapon. There is a specific to-hit roll for each range - 8+

at effective, 10+ at long, 12+ at extreme - modified only for weapon skill and target status (under cover, evading, etc.). Each weapon also has its own penetration rating which differs at each range; i.e., a weapon hit does more damage at effective range than extreme. Yes. AZ-HANTI HIGH LIGHTNING definitely deserves an "A" for its combat system.

Unfortunately, the same can't be said for the meles system. It is one of the least satisfying aspects of the same. The whole thine seems to be merely a simplified form of brawling (with characters engaging in fisticuffs or clubbing each other with sun butts). The method described elsewhere in the rules for converting Traveller characteristics to melee values appears to bear this out. It's almost as if someone at the last moment noticed that they'd overlooked a rule for close combat and threw together a melee system - no time for blades and the like. Still . . . it does work in the context of the same, and that is what counts. But - Golly Gee! - where are those cutlasses the Imperial Marines are always said to be wearing? And surely the wily Zhodani carry at least dappers! Ah. well. . . .

While we're on the subject of lastminute rushes, there is some evidence that AHL may have gone through one at least in parts - in order for the same to be out in time for Origins. This is most exident in the technical manual Several numbered items or areas on the deck plant were overlooked in the deck descriptions in the supplement. What, for instance, is location no. 20 on the Main Weapon Deck? Or location no. 10 on the lower level of the Power Plant Deck? Or no. 28 on the Gunnery Deck? And the Fighter Recovery Lock (location no. 16 on the Hangar Deck) isn't located on the map at all (though it is easy to guess by the description). Hopefully, these omissions will be corrected by GDW with an errata sheet.

In spite of such flaws, however, AZHANTI HIGH LIGHTNING still rates high in quality - far above the releases of a lot of other companies. It stands as a welcome addition to the Traveller family of games and deserves a place on the shelf of any science fiction samer who enjoys a well-designed game that offers both complexity and playability. Designers Marc Miller and Frank Chadwick deserve a hefty round of applause for this offering. One wonders what they'll come up with next. All I can say is, after AZHANTI HIGH LIGHTNING. Traveller game 4 is going to have to be a real planet-buster to compete.

EMPYREAN CHALLENGE

EMPYREAN . . . is defined as "the highest heavens". Control of a star cluster comprising 100 solar systems and 500 planets is the goal of this 150-player hiddenmovement strategic science fiction same. For free details, send SASE to SUPERIOR SIMULATIONS. 524 Franklin Park Circle, Dept. SG1, Boise, ID 83709

GAME DESIGN:

Theory and Practice

Part VI:

More about Movement

by Nick Schuessler and Steve Jackson

With Part VI, we continue our discussion of unit movement.

Putting it Together

So far, we have the level of play (startegic, operational, tactical), terrain tryees tegic, operational, tactical, terrain tryees (elevation, water, foliage, man-made), and historical period (pre-guapowder, premachine gun, and modern) affecting our determination of refined movement. And we haven't even gotten to the "chrome" yet: equipment, training, organization, leadership, morale, etc.

Before we get completely mired down,

sectore we get compicetey miserd down, it might be instructive to take an example of how these factors would influence movement. We'll assume a unit of 3,000 troops, represented by a single counter. Each hex represents 10 mi., and each turn represents two days. Our unit has a base movement of 4 hexes/furn.

Our unit leaves a town where it has

formed up and moves down a road. The base movement would probably holdfour hexe. The leader decides to move "cross country" through clear hexes. Belleve it or not, the movement rate would probably have from four to two hexes/turn. (Or, in terms of movement point costs, the road would cost one movement point per host, the "clear" per hex.) Certainly this files in the face of most "conventional wisdom," which tests "clear" termin most generously.

In walking through the fields and vales, our unit encounters a wooded area 10 mi. across (the whole hex is designated "woods"). By rights, they should be able to pass through the woods in a little less than two days. We round up, and assess all four movement points for entering the woods hex.

The commander spots the enemy and wants to fight. Now if our unit was in a column, the last man in line is more than half a mile from the point of the column. So to get from a column to a line, we charge at least one movement point (equal to about four hours). All the figures used here are for a

World War II German infantry regiment well-trained, well-led, and highly organized in matters like marches and deployment. Now imagine a mob in the same circumstances, and most of the movement point costs will at least double, and more likely triple and quadruple. In point of fact, movement in wargaming is always at a much faster tempo than in real life. Here we've had no mistaken orders, no surprises, and the advantage of secing the whole map displayed exactly as it is. Even with "set-picce" conditions, the movement is much slower than the typical wargame. Of course, we could increase the turn length or change the hex scale to give the unit more movement points. But the basic point - hie bunches of folks just don't move that fast - would remain the determining factor in refined movement

Base Statistics

After our example, it would be well to consider some basic statistics concerning movement:

A body of troops walking covers about 3 mil/nr day or night. Under normal conditions, they can sustain fills pace for about 7 or 8 hi/day. For shorter periods, the speed can increase to 4-5 mil/nr. The average man, unencumbered by equipment, can run about 8 mil/nr for 1-2 ml.
There are, of course, instances of

There are, of course, instances of "forced marches," where troops march continuously at 4-5 milhr for 12-20 hours without stooping. However, there is a fatigue factor that begins to set in, depending on physical conditioning in-

This rate of march is determined by the unit organization and not the historical period, since it is based on the aver-



20 milday is a good rule of thumb.

• Horses walk at about 6 milhr and can gallop at 10-15 milhr for 3-4 mi. Again, you can "force march" horses, but attrition will set in after the averages are exceeded.

 Large numbers of motorized vehicles move in convoy at about 15-20 mi/hr.
 The determining factor is the speed of the slowest vehicle, not the fastest.

slowest vehicle, not the fastest.

• Horse-drawn wagons move the same as infantry. Wagons are more affected by bad road and terrain conditions than either infantry or motorized whicles.

Now smaller sized units will always move faster than larger units. These averages are based on groupings. Three thousand men average about 20 mi/day; 30 men could probably do 30-35 mi/day without ill-effect. Single vehicles travel at their rated speed rather than a road march speed.

Off-cods tend to habe all of these areasgs, with, pethaps, more severe penalty for wagons. Cities and forward have ame effect as off-road. One of the more interesting fictions in wargaring; is earned to the contract as too algood. This is simply not true in most cases, Bridged water barriers will have the effect of off-road because of the "funneling" created by the bridge. Under the contract wargaring are more perfectly the contract many wholes, but can often Foliage has two effects on movement:

first, it obviously slows down the rate of march; second, it tends to disperse the formation. Thus, it takes time to assemble your troops when you come out of the woods or forest. Elevation is mostly a question of how

much. Moderate rolling hills with an easy gradient will have only a marginal effect on the rate of speed. A steeper gradient, or longer gradient, can slow a march to a minimal speed. On a true mountain, you may prohibit any movement to all but specialized units.

Supply Effects on Movement

Earlier we talked about the varying importance of the supply train in different historical periods. The loss of a supply train, or a supply train located doo far from the main body, will have an effect on movement. Up to the introduction of ganpowder, the supply train was of negligible importance, and probably shoulden't own be spreammed. The one place where it would be lamportant is in singe operations of the supply train would simply prohibly an attack.

With the introduction of guspowder, the supply train becomes more three the property of the supply train becomes more claim. At lack of powder, and fodder for thooses hailing the cannon will eventually half operations. We can generalize that in all strategic level gunnes, the supply train should be represented by a counter; in operational gunner is can be "battered to a "supply line"; and in tactical level by the property of the country of the country

goen science. Two factors will begin to infinite the factors will begin to infinite the factors will begin to infinite the factors will be goen to factor will be a factor will be a factor for the factor fa

In the post-machine gas era, the effect of supply on movement is pronouvement of you of supply on movement is pronouvement. You might enterest a man or horse for a little extra effort, but pleading with tank out of gas is futile, again, the effect on welking troops is about the enter. They still have a "basic load," and (for a while) their rate of march is about on which great or march is about on the unit, which makes efficient and coordinated movement more difficult or the property of th

For vehicles and artillary, there is all a "basic load." But because these arms tend to be used in the most intense flighting, they are depleted somewhat faster than the infastry units. Also, the lack of timely resupply leaves the units virtually motionless. So in calculating the effects, we would say that after a motorated unit has moved (used it is basic load) or fought, the lack of resupply would completely prohibit future movement.

A I a Mode

One of the more recent concepts in wargaming — which has a direct bearing on movement — is mode. At the strategic level, the question of whether a formation is in line or column is represented by movement point costs. But at the operational and tactical level, how the unit is formed up (mode) will have an impact on its rate of many contracts.

Normal marches are in column. This mode makes most efficient use of the road network. However, as the unit gets closer to an engagement, it tends to redenloy from a column to a line. The line allows full utilization of the unit in terms of firenower. Now, it is very efficient to march in column: It is very bad to fight in column (your "T" gets crossed). It is very efficient to fight in a line formation, but travelling in line is slow. Nearly the entire unit is off-road, and keeping the line "on line" is a difficult exercise in command and control. If one flank encounters especially had terrain, the whole line slows down to that nace.

In modem times, the line is a fairly flexible affair, albeit turtle-paced. For earlier historical periods, getting into line was a complicated affair, and once in line the only movement was forward.

For purposes of calculating movement costs, we can formulate some general rules concerning mode. First, changing mode should be reflected in some movement point (time equivalent) costs. When you're going from line to column, you're not doing anything else; remember that guy a mile and a half to the rear. Second, road movement is only available when the unit is in column. Third, when in line mode, the direction of movement should be somewhat limited. You shouldn't be allowed sudden turns without some movement point costs, Just imagine wheeling a mile-long line to a perpendicular course.

Crowds and Confusion

If we consider for a moment just what's going on when flour or five counters are stacked in a hex, we can see that the hex especity should also have an effect on movement. The hex scale gives us a fair indication of how many units can be reasonably supported in that particular rare. If that are is already occupied to the company of the contract of the company of the contract of the company of the contract of th

The effect, though, is somewhat problematical. In a situation where strong traffic control procedures are used, it might be possible for a unit to move through at its normal rate. On the other hand, a wrong tum or a broken down vehicle could begin a chain reaction that leaves the whole hex utterly confused. To further complicate matters, the mode of the other units in the hex need to be considered. For example, it would be essier for a unit in a column to move through if all the other units were in line formation.

A more serious situation occurs when a unit retreats into a hex. Oftentimes the best traffic control is negated by fear and self-preservation, and the probability of a meet is increased.

So what's the effect? Well, if the disintegration takes place, there will be a cost in movement points (time) while the affected units re-form. Usually this would be handled by some kind of stacking limit, a die roll for disruption if the limit is exceeded, and then a movement penalty if the disruption occurs.

Chrome and Trimmings

The number of things that can influence movement is nearly unlimited. In dealing with terrain, supply, mode, and stacking we have looked at the basics items which ought to be explicitly incorporated into a game design or at least considered and consciously rejected (or "factored in") for playability.

For the sadistic designer, there are number of other consideration. However, we should note that the scatual effect on movement in smallpail. If you bear movefor whatever reason, you're saying that this "something" will result in a 10% improvement. Ferhaps that's true, but it seems that the training, inderthally, organseems that the training, inderthally, organtic training, inderthally, organsized to the state of the treat is to equalize movement for like type units, right down to where we don't versu print the movement factor on the

When we get into the real chrome, we end up saying more of such-and-such will result in better movement. As for precise figures, or even good approximations well, that's where the artistry of the

designer comes into play:

• A better led unit will move faster than a poorly led unit.

- A unit with better communications will move faster.
- A better trained unit will move faster.
- A "veteran" unit will move faster than a "green" unit.
- A unit with high morale will move faster than a unit with poor

- morale.

 A unit in pursuit immediately after a victory will not move as fast as a unit fleeing from a defeat. Curious but true. Apparently there is less incentive in the "thrill of victory" than
- in the "agony of defeat."

 When units have been re-formed after an engagement, a victorious one will more faster than a defeated unit.
- The presence of a specific leader will cause a unit to move faster; the higher ranking the leader, the faster the movement.

Finally, we should add a note on the weather. There are certain historical listances where bad weather fivored one side or the other; the Russian winder, the Russian of 1941 is usually cited. In fact, the effect of weather is rather uniform and simple. You don't move or fight in really bad weather. It is possible to device complicated weather miss and more low pressure areas across the map. All that happens it that both players at and move the enne turn marker, waiting for the weath-

or to improve. Then they get back to playing the game. For strategic level games, you probably need some kind of weather rules. The turns are in weeks or months, and the seasons do change. But even here, it really docen't matter whether the weather arrives on a fixed schedule or as a result of the die. When the autumn rains or the wither snows come, the effects will either stop movement or allow it to continue on a limited basis. Either way, it nets

In operational and tactical gaming, weather rules are either a curiotity to enhance a scenario or a nuisance which slows down play. Whenever you can, leave the weather to meteorologists. Where you must include it, keep it as simple as possible.

Next: Cambat and Play Sequence

forest wars

OF THE

baven

Learning that Lord Toland is massing the creatures of the dark freed against them. THE HAVEN, last stronghold of mankind, Jaunches a preemptive strike on Toland's camp in the Southern Forests. Infants, archers, rangers, and cavalry, including the dreaded

Imperial Guard, march holdly to the forest along with their allies, the wiskes under Dinjar the Red, and the winged warriors under Vander, to end this threat to manked's very estimated! But Tolond's heards are waiting with their assessme sampire

This begins mankinds greatest challenge. THE FOREST WARS OF THE HAVEN.

Glenvide, Pa. 19038 215.887, 3876

FOREST WARS is based on Godam Diamon's been celling fantons most! "The Havest." "THE HAVEN" has been well received but admiss there are two scapets in print and two more in deliberathy sear. Policies WARS is not a consecutional sugarous with financy terminals. Is his been designed must be been up to further vibration and includes such refinements in a combat matrix, leaders, and moral. Even with all this you can start to play the hoot, genue in thirty mitters. The obstanced point for more experienced players take as his longer.

FUREST WARS comes with a benefit full time map, coinful file or of withoutene counters, and an attractive rates both. The game comes packaged in a ranging one piece books above. The illustrations above is a reduction in aboke and which for the file close furnet overs, there is no printing to the trust or the two so as not now to report the contraction of this original piece or air. The printing is no the back cone which has smaller full order original rate. The contraction is not not not not not be reported in the contraction of the original piece of air. The printing is not the back cone which has smaller full order original rate. Compare the two so as not not not not not not be the back to game to CRISS.

POREST WARS OF THE BACKYE may be provided at the special intendictive print of \$25.00, or a special differ rout on obtain that the game to CRISS.

WASS OF THE BAYES, and the few books in the "Haven" series, "The Haven", "The Empire Process", "Dangeons of Kulu", and two more — over 1800 pages of fatures literature—for one 2015, 55. Each book in the HAVEN series, this little "Blocktated." THE TOWER OF ELBRITH is, a preparignment dangeon for 1 to 6 players which does not need the services of a non-player dangeon master! Hart's Right! You on play softensy from wish, \$2.50

You can play soldure: if you wish, 52-99

TAU CETI S. F. Pancer@litz like combat for the planet Tau Ceti. Special 56-49

If you can not obtain these fine games at your local bobby store, they can be purchased through the mail directly from us. Any order will recess over M page.

illustrated cutalog feer if requested. The catalog is 35% if purchased by metil. If you include the mame of the magazine in which you wan this ad-shipping and insurface is FREE! Dealer inquiries Welcome ATTACK INTERNATIONAL WARGAMING ASSOC.

314 Edgies Ass.

314 Edgies Ass.

SATISFACTION GUARANTEED?
If not fully validied return in unused condition in 10 days for a full refund?

Company Report: YAOUINTO GAMES

Yaquinto is a name that is often mispronounced and mismelled. (Pronounce it "vuh-KEN-toe." Ed. I It is also the name of a company that, in its first year, has become one of the top five companies in the industry.

The reasons for this success are not mysterious. We operate on two simple maxims. We design earnes that neonle like to play (and play more than once or twice), and we subscribe to the basic truth that we need you, the gamers, a

lot more than you need us Good word of mouth advertising is one of the most valued assets a company can possess. When Crate Taylor and I were Battleline Publications in Georgia. it was word of mouth about Wooden Ships and Iron Men. Alpha Omega. Submarine, and Air Force that built our regulation. It was something we were used to. When we started Yaquinto without it, we realized how important it was and how lone it would take to come into play. Not having it meant that our earnes had to be that much better if we were going to be successful. Good games are difficult enough to produce, but games

that will obtain good word-of-mouth Playtestine

advertising are very rare.

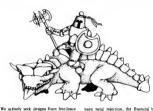
We rely heavily on our playtesting process. On any given Saturday we host between 15 and 30 playtesters. These people are gamers, spending their leisure time (a commodity that is often more valuable then money) with our future eames. They will not waste their time on a same that they do not enjoy. They will not tolerate a sloppy or clumpy game that is more trouble to play than it is worth In short, they are our toughest critics.

Designers

We don't force one or two staff reonle to produce one new idea after another

we knew it could be a tremendous dollar value to the consumer. We also knew it would be a radically different packaging concept that the consumer might turn down cold. After much discussion, we decided to try it. In-house tests determined that the physical components would work but there was still not the slightest hint whether the consumer would accent it. We displayed prototypes at the HIA trade show, where distributors ordered them with guarded enthusiasm. In May we shipped them, and held our

breaths. If the resnonse had been unfavorable we would have been in trouble. If it had



designers. True, we waste a lot of time culling submissions, but we find enough jewels amone the stones to make it worthwhile. For example, of the 23 titles in our line, 11 came from outside sources. The Album Games

We released the first Album Games last May. When we first discussed the kleabeen total rejection, the financial bind would have been severe

Two weeks after the first shipments. the distributors started calling to reorder. They were having no trouble placing them in the retail outlets. But we still had to await the important reactions those of the consumer. Happily, our nerves were not fraved much longer. Within a matter of days we started receiv. ing letters of praise from gamers. Now, a short 2½ months after the original shipment, we are preparing to reprint two of the original Album Games, with the other two to follow soon after

Future Plans

Several more Album Games, on a variety of subjects, are in the works. The big Yaquinto project at the moment is a boardgame based on the hit TV series Dallas. Look for it before too long.

御のぞAN WOFAN. A world propert and medieval by aur standards it is

minoted by two intelligent homonoid species — the Helvan and the laseth. After the three great Hekign-Roseth wars and the period of the Great Rebellions. Worlan is politically divided by tribes and any states You start as the chief of a tribe. When the rules are sent to you you ermine the name of the tribe, the race, and the introl make-up by the make-up sheet provided. All battles are resolved from tactics sent in by players. A tatally unique mavement system is used involving no compass

beadings (Fast West etc.) and no sector constitutional ome may be entered for ren dollars which includes rules, set-up, and three basic game turns. A basic game turn (\$2) including scouting, move nt and four speagl actions (extra special actions are 15¢ aprece). Send

werk or money order to THE GAMEMASTER * P.O. BOX 2878 * ANAHEIM, CA 92804

-Steve Peak Yaquinto Games

DEUS FX



MACHINA

Calculator Play Aids

This month, instead of Bruce Webster's regular column, we have a special quest column on calculators in wareames by W.G. Armintrout of Tooele, Utah.

HP-25 at War

Programming a calculator is simple. Anyone can do it. Just to prove my point, here are three programs for the Hewlett-Packard HP-25 which I managed to come up with If you own an HP-25 these will be immediately useful to you. If you own any other brand of calculator. you can no doubt adapt these programs with a minimum of trouble. If you don't even own a programmable, at least you'll be moderately exposed to the great Light which the silicon chip is dishing out upon the world

The three programs are - LINE OF SIGHT; RISKIER; and BORG THE PROGRAMMABLE.

Line of Sight

The programmable calculator can make mincement out of those imposing formulae that up to now have kept a lot of us away from some extra-complex games, The example at hand is line-ofsight as treated in SPI's Great Battles of

the American Civil War series. Basically, the problem is to tell if your artillery can shoot at that cavalry when hills and dales of at least five different elevations are in the way. The game provides a Line of Sight gauge, but it is a violent pain to use. It also provides the Line of Sight Algorithm:

Line of sight is clear if

H = difference in beicht between attacker

and target D = distance in hexes

from attacker to hp = difference in height between obstacle

and attacker OR target (whichever is the lowest) do = distance in hexes

from obstacle and attacker OR target (whichever has the lowest elevation)

This can be arranged to look like this: Dh(Eh-5) - DoEh

where E1 = height of attacker or tarret (whiehever is least) Eh = height of attacker or target (whichever is great-

E. = height of the obstacle Dh = distance in hexes from

attacker to target D. = distance in hexes from obstacle to the attacker OR defender (whichever has the lowest elevation)

This can be used to put together a program that will accept Eu. E., Du. and Do, and reply with an elevation which, when compared with E1 will let you know if you can sight the enemy.

Here is the program: (Note: The "code" is shown for HP. 25 users. It can be used to review the program after they have keyed it into their machine and to search for enter

citon			water for en	uy
Step 00	Code	Entry	Comments	
01	23 07	STO 7	Stores E _h memory 7.	in
02	74	STOP		
03	23 06	STO 6	Stores Dh memory 6.	in
04	74	STOP		
05	23 05	STO 5	Stores E _o memory 5.	in

06 07	74 23 51 05	STOP STO+5	Adds terrain
			modifiers to memory 5.
89	74	STOP	
09	32	CHS	

			D :
11	23 61 07	STO X 7	Do in mem. 4 DoEh is now in mem. 7.
12	05	5	
13	23 41 05	STO - 5	(E ₀ - 5) is now

To use:

1. Key program into calculator. 2. Enter Es. press R/s key, and walt

itself and stops.

until calculator stops working 3. Enter Dh. press R/s and wait.

4. Enter En press R/s and wait. 5. Enter terrain modifiers. (Different values are added according to the terrain

in the obstacle hex. See rule 9.72.) 6. Enter Do. R/s. 7. The calculator will now give its reply, If the number it provides is less than

reset program

Otherwise, go

back to sten 7.

and ston.

or equal to E1, then you've got a clear line of sight and can open fire. If not you con't thoat

Evennle

A Union battery is in a comfield (elevation = 100 (t) A Confederate cavalry unit is 8 hexes away, on a hill (elevation = 250 ft). In hetween is a small hill two hexes from the Union battery (elevation = 150 ft), occupied by Union supply

wagons. Is there a clear line of sight? E_b = 250 D_b = 8 E_o = 150

Modifier = 10 $D_0 = 2$ Plugging these into the program grants the result - 123.33. Since this number is not less than or equal to E1 (100 ft), the line of sight is blocked.

This program can be used in under five seconds, eliminates plodding human calculations, and even adds a little accuracy to the same Without my programmable. I doubt I would play a game like

this Now maybe one of you out there can come up with some programs to speed up Vector 3?

Rickier

If your machine has enough memory and sufficient speed, you could put an entire CRT in there and forget about die rolling. My calculator hasn't the memory. As for speed ... well I can roll three dice faster than it can generate the total of three random numbers which range from 1-6. But even my HP-25 can handle a daffy little combat system for the popular boardgame Risk

The program is not exactly a rulebook Risk Victory is determined by straight odds and a random number eenerator. If the attacker has 3 units and the defender I unit, for example, the attacker has a 75% chance of victory. The formula

X(A + B) - A where X = random number from 00 to

A = number of attacker units B = number of defender units If the result is negative, the attacker wins. If the result is positive, defender

wine Losses, however, are figured without any regard to the odds (which is why this program is Riskier . . . you always risk the

potential loss of all your attacking units!) [X(A + B) - A] (B/A) - .5 if an attacker's victory

[X(A + B) - A] (A/B) + .5 if a defender's victory

The entire formula is:

The program should accept the number of attackers and the number of de-

fenders, and reply with losses for the 13 30 GTO 30 If X(A + B) loser. Here is my program: - A is neg. go to step 30. Step Code Entry Comments 24 04 RCT 4 no 22 24.06 RCL 6 23.07 STO 7 Stores A in 23 memory 7. 24 24 07 RCL 7 74 STOP 61 X 03 23.06 STO 6 Stores R in 26 memory 6. ns Ġ 24.07 RCL 7 04 28 51 Final result 05 51 has been ar-06 23 05 STO 5 Stores A + B rived at in mem 5 29 13 38 GTO 38 Skin to 38 07 eP1 Steps 7-13 are 30 24 04 RCL 4 a random num-24.07 PCI 7 ber generation sequence 33 24.06 RCI 6 ne. 24 00 RCI.0 They generate 61 35 X. 73 no 51 26 05 10 5 27 41 Final result 11 14.03 fvx has been ar-15.01 PERAC rived at. 23.00 STOO 38 TNT Result is made 14 24 05 RCL S into an Inte-15 61 x X(A + B) is on display. 39 • X ≠ 0 24 07 RCL 7 40 13 00 GTO 00 If result # 0,

Be A Hero

41 13 07 GTO 7

 $Y(A + B) \cdot A$

in mem 4.



41

18 23.04 STO 4

19 15.41 2X<0

> Datestones of Ryn. You explore the caverns shown on your video display and vanquish the monsters in real time. You have just 20 minutes to recover the precious Datestones before time itself store Monsters-Melees-Magic! The Detestones of Ryn introduces you so the superlative DUNJONQUEST game you against an evil wizard or the fright sectoid monsters of the god Apshai. In the Dateatones your main opponents are human, but look out for other nasty critters larking in the darkness. You have 14 different commands ranging from moving (as fast or as slow as you like so long as you don't tire

ers in their mountain lair in the

For just \$14.95 you get the Dateste Rym on cassette ready to play, and a superbly satrated booklet that tells you all about the

e. Please specify the version you want -TRS-80 (Level II, 16K), PET (16K old or new ROMS), or APPLE (32K Applesoft).



PO Box 4247 Mountain View, CA 94040 California residents please add 6% sales tax

20					
To use:	09	24 06	RCL6		48 23 51 06 STO + 6 Add "7" to
1. Key the program into calculator.	10	51	+		memory 6.
2. Initialize the Seed, Place any num-	11	24 05	RCL 5		49 23 51 07 STO + 7 Add "7" to
ber from .00 to .99 in memory 0. This	12	51	+		memory 7.
starts the random number generator. You	13	61	x	X(S + B + F)	To use:
only need to do this once, after keying	14	01	1		I. Key program into ealculator.
the program in.	15	51	÷	X(S+B+F)+1	2. Initialize the Seed, Place any num-
3. Enter A. R/s. Wait.	16	24 07	RCL 7		ber from .00 to .99 in memory 0. This
4. Enter B. R/s.	17	41		[X(S + B + F)	starts the random number generator.
5. The calculator will now give its				+11-8	You only need do this once, right after
reply, If the number is negative, those are	18	1551	gX≥0		keying in the program.
the losses for the defender. If positive,	19	13 26	GTO 26	If greater than	3. Initialize the memories. Place any
those are the attacker's losses.				or equal to 0,	positive non-zero number into memories
To run the program again, return				go to step 26.	7 (STONE), 6 (BLADE), and 5 (FOG).
to step 3 and enter A.	20	01	1		If the number is high, feedback will
Example:	21	74	STOP	Program stops;	have a smaller effect on the program.
Place .49 in register 0 as a Seed.				displays "I."	If the number is low, the program has
The attacker, with 33 pieces in BRA-	22	23 51 07	STO + 7	Add feedback	more chance of being interrupted by an
ZIL, is assaulting an enemy NORTH				to memory 7.	"error" message. I would suggest "7"s
AFRICA which contains 18 pieces, En-	23	24 07	RCL 7		in all memories, to begin with. You can
tering these into the program grants a	24	14 07	fln	Program check	change this with experience. This is only
result of "2" - the attacker loses 2 units.				- if memory	done once, immediately after keying the
The attack continues - 30 pieces				7 is less than	program in.
against 18 pieces. The result is "-5" and				or equal to 0,	4. Press the R/s key.
the defender loses 5 pieces.				"error."	The calculator will now give its
The attack can continue as long as the	25	13 01	GTO 01	Go to step 1.	seply - either a 1, 2, or 3. A "1" means Stone, a "2" means Blade, and a "3"
attacker has at least two units in BRAZIL	26 27	24 06 41	RCL 6	(X(S + B + F)	means For.
(one to attack with, one to garrison the	21	41		+ 1] - (S + B)	6. The calculator will now give a new
country with).	28	15 51	2X≥0	+ 1j - (3 + b)	display - "1" - and stop, (If it already
This program, while hardly a great advance in programming, does give some	28	13 38	gx≥0 GTO 38	If greater than	display = "1" = and stop. (If it already displayed a "1" is step 5, this will not
idea of how a programmable calculator	49	13 30	01038	or coual to 0.	occur).
with enough memory and speed can				so to step 38.	7. You may now key in the feedback.
with emonths incitioth and speed can				go to step 38.	/. 100 may now key in the recuback.

supplant the CRT and dice in a normal 30 02 If you do nothing, you give the calcu-PAUSE Program pausgame, In fact, such a development could 31 1474 lator a positive feedback. If you press the lead to such unique developments as the es, displays "2" CLX key - cleaning the display - you give no feedback. If you press the CHS writable CRT or the unknown CRT (that 01 74 STOP key - changing the "1" on the display 33 Program stops displays "1." to a "-1" - you are giving a negative

is, known only to the calculator). Borg the Programmable Lastly, here's a simple program that aims to provide an opponent to be outguessed. The game is Metagaming's halfmicrogame Oneworld, and this program

วก

selects Child transformations prior to combat

The important thing is that this program includes a foedback cycle. It thinks ... sort of. If it is throwing Blades at you and you are eating them up, then it will eventually learn not to do that and start using something else, So here is the program. Note that it has some resemblance to the Riskler

program given earlier:

Step Code Entry

00

01

02

03 51 +

04 05 Ś

06 15 01 oFRAC.

07 23 00

08 24 07 RCL 7

14.03

24.00

Comments Random number generation sequence RCL 0

45

46 07

13 01

34 23 51 06 STO + 6 Add feedback

14 07 36

flo

3

35 24.06 RCI 6

37 13 01

38 03

39 14 74

> STOP fln

PAUSE Program paus-STO + 5 RCL 5 "error".

47 23 51 05 STO + 5 Add "7" to

"error." GTO 01 Go to step 1. es, displays "3" Program stops, displays "1" Add feedback to memory 5. Program check if memory 5 is less than or enual to zero.

GTO 01 Go to step 1.

memory 5.

to memory 6.

Program check

if mem. 6 is less than or coust to zero.

multiplies them by a random number from .00 to .99 and compares the result to the three memories to determine a result. The memories indicate the chance Example

feedback.

that a 1, 2, or 3 will be displayed by the program as a result. If all memories contain a "7," there will be an equal chance of each result being chosen. But if all memories contain "7"s except memory 5, which contains a "14," then there is a 50% chance that memory 5 will prevail and a Fog will be chosen (that is, a "3" will be displayed on the calculator), Initial values: Memory 7 = 12 Memory 5 = 5 The result will be a 1, which indicates Stone SPECIAL CASE:

If the program stops and displays an

8. To start over, go to step 4.

How it Works This program is hasic-

ally an outgrowth of the Riskier program.

It takes the total of three memories.

SEED = .80Memory 6 = 8 "error" message, something has gone wrong. To be particular, one of the three memories has gone to "0." If this is not remedied, the program will never again choose whatever aspect it is which is controlled by that memory. The fix?

Key in GTO 46, and press the R/s key. This puts a tiny subroutine into effect which adds some number — in this case a "" — to all three memories. In this way, the operator does not actually know which memory went to "0" — which is important if he is trying to outguest the

calculator. The whole process depends on the fact that my calculator, if asked to take the natural log of 0, halts and says "error," or This will not work if your calculator refuses to go along and say "error," or blink or do something to alert the

operator.

When the calculator stops once more, press the R/s key and you are back in

normal running condition.

To integrate this program into Oneworld requires a few special rules, changing the process of combat but not making
any important changes. This is because
my program will generate only one transformation at a time. It could generate
several at once, but that would complicate the feedback cycle beyond the talman of the programmable acclustor.

First Transformation. The human player chooses his Children's aspects.
 Next Transformation. The calculator now generates its first aspect.
 Resolution. If a human player's

unit is killed, place it in a special pile of units to your right. If a human player's unit kills the calculator's child, place the human's child in a special pile of units to your left. If the calculator's child is killed, eliminate it as normal.

 Feedback. If the calculator's child was not killed, AND killed an enemy child, do nothing. If the calculator's child was killed AND did not kill an enemy child, press the CHS key. In all other cases, press the CLX key.

5. Next Transformation. If the calculator has no more children in the hex, combat is over. Units in the human player's right pile are placed in the baggle where dead units normally go. If the calculator has more children which have not yet transformed, press the R/s key and let it generate again.

6. Resolution. Do as in step 3, with a few exceptions. The calculator's child can only kill units of the human player which are not in his right pile. The calculator's child cannot be killed by human units in the left pile. If a unit in the left pile is killed, put it with all other dead units. If a unit in the right pile kills the calculator's child, it is also put into the normal dead pile.

7. Feedback. Same as before.

8. Next Transformation. See step 5.
9. Resolution. See step 6.
If both players have units remaining in the bex. so back to step 1 and beein

another round of combat.

What are the advantages of this program? It allows a solitaire player to try to actually outgoes an opponent. He can try to manipulate the calculator, through Shones at it until the calculator gets used to that and then switching to a new tack. He can program the calculator for different initial tactics, and see how the strength of the candidate for the candidat

prevails. It is certainly a great improve-

ment over using die rolls to govern aspects in a solitaire game. It is only a simple program — after all, it doesn't propose strategy or move

an accession proposes effecting of more contentials of a calculator opponent. Most can be done with programmable calculators. My IP2-S, once the prood pleneer of its laint to find general using models have vest improvements in memories and speed. Some come with audible bergers or maided capability. Some can be present of the content o





Ten Characters I Wouldn't Let In Mv Universe

Everyone who referees or plays a roleplaying game - fantasy, science fiction, or what have you - has a favorite "nonplayer character." And like as not that NPC will be a truly outrageous specimen. Recently a discussion of truly memorable NPCs hore strange fruit indeed. The ten

best (or worst) follow.... We haven't given specific characteristics for any particular game systems; after all, these are the characters we don't play. If you're brave enough to try them, working out the attributes for your system should be no problem. But don't say

you weren't warned.

1. Elvish Presiev. This half-elven bard is distinguished by his guitar, pointed ears, and pot-belly. He is a skilled bard with a high charisma (especially to the opposite sex). But not everyone likes his

2. Daniel Boom. An outdoors type. this hardy soul loves loud noises. His favorite hobby is bear-hunting with grenades. (Note, found carved on a shattered tree: "Dan'i Boom kilt a bar somewhere in this general vicinity ")

3. The Wight Brothers. A pair of undead bicycle mechanics. Killed in a flying gadget they built themselves, they still roam the earth, driven by their mad ambition to fly, Somehow, Anyhow! If you have the ability (magical or otherwise) to help them achieve their goal, they may befriend you. In addition to their undead nowers, they are both expert mechanics. But if a party has (for instance) a Rine of Flying, and the Wights cannot bargain for it, they will try to take it.

4. Captain Ouirk. Seems like an excellent sort when you run into him in a bar on Anthrax IV - cleancut, upright, tough and experienced. Hire him for your exploration trip and you'll be sorry. His hobby is exploring strange worlds . . . to seek out new highs. New incivilities. To boldly smoke what no man has smoked before! Away from civilization, he goes wholly ape, sampling native vegetation right and left. There is a small nossibility that he'll die: a medium possibility he'll get sick: a medium possibility he will discover a new drug, which he'll then try to smuezle back home in your ship. His

motto: "Space is warped. Me too!" 5. Sailbad the Shner. The name tells it all. Board his ship and there's no telline where you'll end up. Or when, Or in what

state of debauchery 6, Honda Kawasaki. Samurai/paladin: likes to ride down ones with his marie

steed. Vroom. Honda wears dirty leather armor with strange runes on the back. Favors flexible weapons. He can fix anything.

7. Earlick of Mendelbaum. This perverted albino wanders around with his mighty sword, Sturmuntdrang, Under all circumstances, Earlick feels sorry for himself. He will endlessly bore his companions with nitiful stories about the fall of Mendelhaum, the deaths of all his family and friends, etc. He attributes all his misfortunes to bad luck. When confronted with danger, Earlick will either (a) draw Sturmuntdrang, wind up, and clip the man behind him, or (b) call on some force too nowerful for him to control, in hopes it will do him a favor. Either way, there will soon be another disaster for him to add to his list of woes.

S. Conman the Barbarian, A big, tough warrior, covered with scars and bulging muscles. He will be found in a tavern, talking about his adventures and having "one more for the road." It will soon become apparent that Conman is itching to go after an immense treasure he knows of, guarded by some relatively trivial monsters. "Alı, if only I had a few stout shield-brothers (sigh)." Parties that go with Conman will vanish. Conman himself will be back in the tavern in a week or so, telling how his friends were devoured by dragons and he himself barely escaned. However, their weapons and rear will turn up in the local nawnshops. The tavemkeeper tolerates Conman, as he never seems to run out of drinking

money. 9. Fastfood and the Grey Muncher. This rotund pair is pretty good in combat, but definitely not worth the supplies they consume. On an extended trip. you will run short of food. At this point, the duo will chorus, "Let's go foraging!"

and will go seeking their favorite foods Fastfood likes dragon tongue. The Grey Muncher favors harbecued halron If the narty agrees to this mad proposal they will inevitably find what they are looking for. If they decide to stay in camp. Fastfood and his companion will return a few hours later, belching and boasting of the meals they have had. They will talk endlessly about food, while the party gets hungrier and hungrier....

10. Uselvsses. A heroic wanderer and misplaced (i.e., lost) king, renowned for his careful and cunning planning. He will usually he found waterloseed and unarroad, wanderion in a labyrinth, carefully planning how he's going to get out. If the party which encounters him is attacked. Uselvsses will cunningly plan his foes' defeat, even as they hack him to minestrone. Roll 1 die every day; on a roll of 6, another immortal being has become furious with him, and will make one attempt to obliterate him and the narty. Whatever happens to anyone else. Uselysses will escane to continue his wandering.

Guilty parties in the above crime were: For 1 through 4, Steve Jackson, 5: Ed Grotheus, 6-9: Forrest Johnson, 10: Aaron Allston. Some of you may have noted that there are really 12 characters. not 10. To you we say, so what?

CONTEST After reading the above article, you

may think you can do better (or worse), Go right ahead! Write up the characters you wouldn't let in your universe (up to three entries per person) and send them to us. Characters will be judged on cleverness, inanity, and probable ability to throw a party into despair if they encounter them.

All entries become the property of TSG. First-place winner will receive a 12-issue subscription; second place will receive 6 issues. Their entries, and any especially good runners-up, will appear in TSG. We reserve the right to award no prizes if oo entries of publishable quality are received. Entries must be postmarked no later than October 30, 1980.

StarMaster

red sun above. This is not a drill. Already laser and missile fare from the mile-wide guardian fortresses below have turned the sky into an exploding nightmere of smoke, fire, and fragmented metal. Planes and shuttles twist and dode down fowards is landscape racidity.

and douge commonators is removable.

This is no mere raid. For years your people hed
explored nearby systems without violence, treding
technology to the primitive civilizations there is
exchange for raiv materials. Some species had even
thought you gods.

Then you met the Aeratang, Merciless, Brutal, Then you met the Aeratang, Merciless, Brutal, they destroyed your exploring ships and began to slaughter your colonies. But you found their home planet and isunched the greatest filed your kind ever built to carry the war to your enemy. To flight for your very survey.

Will it be enough?

Starmaster is a correspondence game of galactic exploration diplomacy, and conquest allowing for interaction not only between each player and the worlds of the galaxy, but between the players themselves.

New players begin further out from the Galactic Center than established players allowing them to develop themselves among equals. You may lead a powerful reptilian race carving out a vast empire of colony and subject worlds or perhaps an insectiod species, engaged in a holy crusade to convert the calaxy to the worship of their many-legged god

galaxy to the worship of their many-legged god. As chosen ruler of your people, you must decade what diplomatic and military policies will be followed in order to lead your kind to dominance among the

sentient beings of the galaxy. The galaxies of StarMaster are a complete fentasy environment of solar systems, with geographies renging from worlds near absolute zero to worlds where rivers of molten tungsten bubble, with technologies spanning from rock-throwing cave-dellers to ad-

venced Elder Races with neer-godlike abilities Nor is the StarMaster environment limited in terms of playing erea. There are multiple galaxies allowing for extra-galactic invasions across the voids There are both netural and constructed gateways to (and from!) other dimensions and parallel universes.

There are both netural and constructed gateways to (and from!) other dimensions and parallel universes. StarMaster is limitless in possibilities, bounded only by imaginetion! It is a game where, literally.



1979 Schubel & Son



- StarMaster offers these features

 Design your species as if you could have directed evolution to this moment
- Design your homeworld in terms of temperature, atmosphere, and mass.
- Choose your government and social order
 You decide the production for all worlds of your empire, building colonizing ships, merchantmen.
- empire, building colonizing snips, merchantmen, warships, warriors, and fortresses * Technology increases steadily, permitting faster, larger ships, deadlier weapons, and scientific break-

throughs
The galaxies are dotted with the ruins of Elder civilizations lacking the strength to master the stars. Can you lead your world to greatness where so many others fell short?

StarMaster may be entered for \$10.00 which includes the first three turns, e rule booklet, and all necessary material (except return postage). Thereafter, turns are \$2.50 each.

Schubel & Son
P O Box 214848
Sacramento, CA 95821
StorMoster

CAPSULE REVIEWS

THE SPACE GAMER reviews board eames, role-playing games, computer eames, video games, and game supplements. We review play-by-mail sames if a reviewer is enrolled. We will review any science fiction or fantasy game if the publisher supplies a copy. We do not guarantee reviews of historical warrannes TSG may publish a review of a same we are not sent - IF a reader submits a review.

The staff will make reasonable efforts to check reviews for factual accuracy, but opinions expressed by reviewers are not necessarily those of the magazine. For information on writing reviews for TSG see "Writing Reviews for THE SPACE GAMER" further on in this section.

Comes for which reviews have been assigned or received include: The C&S Sourcebook, Cerbenet Cities City of Terror Cosmic Encounter, Dark Nebula, Death Test II, Dungeon Musters Adventure Log, Hexagony, Junta, The Legend of Robin Hood, Magic Wood, The Mines of Keriday Monsterel Monsterel Nebula 19, Nuclear War, Professional Wrestling, Ramspeed, Robots!, Sector 57, Space Quest, Star Ouest. Strike Team Alpha, Swords & Sorcerers, Treasury of Archaic Names, Ultimatum, and The World of Greybawk

Courifle comes for which we are seeking periewers include: City State of the World Emperor, Darkover, The Emerold Tablet, It. Knights and Knaves, MAATAC, Marine: 2002. Skull & Crombones, Space Marines, Starffre, Starffeer Battles (boxed ed.), and The War of

RARRARIAN VINCS (SDI): 55 95 Designed by Gree Costikyan, Includes 8-page 81/2" x 11" rulebook, 11" x 17" map, 100 die-cut counters.

For 2-5 players, 3-4 hours playing time. Published 1980 Like White Bear and Red Moon, Swords & Sorcery, and several others, BARBARIAN KIRCS is a housdrome shout warring states in a mythical land where magic works. Each player starts with a king, who has selected marical and non-magical powers, and one or

more provinces. He then attempts to conquer neutral provinces and provinces of the other players. The emphasis is more strategic and economic than in other games of its type, The man is divided into areas (not hexes), each with a taxation value and an inhabiting race. All units betoes and wirands are mescenaries The units are colorful introcution and you



ind. Units are of different types (infantry, ca valry, or floors) and of different races (barbariam, pirate, foudal, civilized, elven, dwarvish, orc, warfrog, whale, or airmen), Purchase cost, maintenance cost, combat strength, and movement allowance all vary, and some units have energial abilities. Barbarians are a bit less nower. ful than civilized humans, but are much cheap er A kine will probably need sweet types of units in his forces, so conquests must be planned with the inhabiting races of provinces

in mind as well as the taxation values, BARBARIAN KINGS has many problems The "humor" of SPI's Swords & Sorcery is again present in BARBARIAN KINGS' war-"scouin" monetary units, and "scale of zots" for measuring distance, Also, like Swords A Survey it fails to create a helievable fantary background. The idea of all units being totally mercenary (for example, elves joining a force of ores and dwarms to fight other elves) is hard to accept. RARBARIAN KINGS has concise rules but the rules have several ambiguities. Movement is very fluid and attack is very easy. so attack and defense is based on surseine rather than stratery. Victory is larrely a matter of luck, Worst of all, playability is poor, due to the excessive bookkeeping required

A die-bord fan of fantasy boardrames, perinsludy Swords & Sorgery, might like BAR-BARIAN KINGS, Others should avoid it -Keith Gross

ABBREVIATIONS

AC = armor class AD&D = Advanced Dungeons & Dragons AH = The Avalon Hill Company APA = amateur press association (sometimes

action point allowance) BEM = bur-eved monster CHA (or CHR) = charisma

CON = constitution CPM = control process monitor c.p. * copper piece(s) CR = credit(s)

C&S = Chivalry & Sorcery CRT = combat results table (sometimes cathode ray tube, i.e., TV screen)

d = die (3d6 means three 6-sided dice) D&D = Dungeons & Dragons DM = dungeon master (sometimes die modi-Ger)

DX (or DEX) = dexterity EHP - evil high priest e.p. = experience point(s) (sometimes electrum

nieros FBI = Flying Buffalo, Inc. FGU = Fantasy Games Unlimited FRP(G) = fantasy role-playing (game)

GAMA = Games Manufacturers Association GDW = Game Designers' Workshop

GM = game master g.p. = gold piece(s) h.p. = hit points

HTK = hits to kill IQ (or INT) = intelligence

K = kito-bytes of memory LGM = little ereen men

LK = luck MA = movement allowance (sometimes marieal/military/mechanical aptitude/ability)

MR = monster rating MU = magic user NPC = non-obyer character

OSG = Operational Studies Group OSI = Ohio Scientific PBM = play by mail

PET = Personal Electronic Transactor (by Commodore POW - power

RAM * random-access memory ROM = read-only memory S&T = Strategy & Tectics SF&F = science fiction and fantasy

SIZ E eine e.n. = silver piece(s) SP1 = Simulations Publications, Inc.

SR = saving roll (sometimes strike rank) ST (or STR) = strength T&T = Turnels & Trolls TFG = Task Force Games

TFT = The Fantasy Trip TRS = Tandy-Radio Shack

WIS = wisdom

TSR = TSR Hobbies, Inc. (formerly Tactical Studies Rules) ZOC = zone of control

EARTH GAME (Family Pastimes); \$9.50. Designed by Jim Descove, Five page 8%" x rule booklet, 17" x 22" map, 18 Earth cards and one reference chart, 47 resource tokens. 44 problem tokens, six nation cards, and 75 "one billion Earth Bucks"; boxed, 1-6 players; playing time 1-3 hours. EARTH GAME is a cooperative same about managing the resources and solving the prob-

lems of planet Earth, Each player controls one or more of the six nations (continents), all working together to overcome their problems by the application of the proper resources, Play lasts for one year (twelve monthly turns plus two semi-annual income collection interphases) at the end of which victory is assessed: if no unsolved problems are on map all the players win, otherwise everyone loses, It is also possible to lose before the end of the game by either having a global economic collapse (one nation runs out of Earth Bucks) or by startine World War III

On the whole, the system is a simple one ("for ages none and up") and the average warpamer will have little trouble mastering the roles. There a few fuzzy areas in the rules, but since this is a cooperative game, any mutually agreeable interpretation will suffice, Al-

though the rules themselves are not very difficult, players will quickly find that they must all work together if they are to pilot Spaceship Earth to a victory. There can be no fighting amonast the players as a matter of fact comflict is one of the problems that the nations are trying to solve

Simple yet emoyable, this same could proide a welcome change of pace for those gamers tired of being ganged up on in multi-player ints. However, gamers looking for a game filled with fighting, double-dealing, and all the other amenaties of the average multi-player game will have to look elsewhere

... Frie Processon

ELRIC (Chaosium); \$12.50, Designed by Gree Stafford, 16-page 8%" x 6" booklet. 34" x 20" map, 130 die-cut counters, 48 marie cards, 8 combat sheets, zip-lock storage bag, 2-4 players; playing time 1-3 hours, Published

ELRIC is based on Michael Moorcock's fantary-adventure series about the albino emperor. In the first scenario the players each control one of the Young Kingdoms as they try to destroy the port of Imyrr on Melnibone, In a second, two-player scenario, the players assume the parts of Elric and his arch-enemy, Theleb Ksarna, as they try to destroy each other. The counters consist of leaders armus and floets, Movement is by area. There are no terrain restrictions. Each leader may move four areas per turn. Armors are "picked up" by a friendly leader. The armses are placed on a leader's space on a combat sheet, off the board. Combat is resolved easily with a simple chart each leader having a certain combat value (armies count as one). The leaders with music capability can ally ("muster") non-player kingdoms to their side by using marie cards. Elege himself goes flying randomly over the mapboard until stacked with a leader of one side or

The map is a work of art each kingdom in differently colored with the names of various areas in beautiful calligraphy. By far the best feature of the rame is the unique "morie cool" system. On each card appears a god, mouster, or artifact. Some cards have special abilities most can be used to add combat totals; and all can be used to muster certain leaders or kingdoms. A short history of the subsect of each maric card is set out in the back of the booklet. The cards add spice and personality

to an otherwise purely tactical earne. Unfortunately, there are many drawbacks. My set came missing several leaders and fleets. The art on the counters and on many of the maric cards is awful. But the worst problem so the rule book, which is nearly indecipherable. in the second, two-player-only scenario. First must continue to make random appearances. even though he is being played, thus it is almost impossible for the Elric player to stand anywhere long enough to muster a kinedom. Also, Eltic himself cannot be killed unless the "Cosmic Ralance" above the mappoand is tilted all the way toward either Law or Chaos. Since this event is extremely rare, the second scenario is

lenethy, boring, and unsatisfactory for both Desoire these disadvantages, the first scenarto is smooth-playing, pleasantly unpredictable. and entertainme. As at simulates very accurately the chaos and adventure of Elric's world, the same will appeal to Moorcock fams. For \$12.50 ELRIC is well worth it for fantasy and warcompressibles

- Petrick Associ

phyers.

FINAL FRONTIER (Rul Portlo): \$15.95 Designed by Glenn Kidd & Marc Rubon, Boxed counters, 40 15mm metal figurines, and 2 dice Two players: playing time 1,2 hours: Published

1080 FINAL FRONTIFR is a minustures game of Terran infantry against the Knudy. The same is played on a clear flat area 4 ft by 4 ft. Terrain. is provided by 16 counters which interfere with movement as well as block line of sight The ministures are nicely detailed and east

so tell apart. The order of play is interesting and helps add balance to the play of the same. It is suggested that you mount the pieces The rules need to be expanded somewhat Wounds do not kill cumulatively, but only by a but which kills in one blow. The terrain counters were rather dall, and the markers for distanguishing wounds and stuns were hard to tell apart. Reading the final scenarios is helpful to playing the basic scenarios.

I would recommend this name to those slavers who are in need of science fiction infantry miniatures, and enjoy creating their own

-Billy Moore GAMMA WORLD (TSR): \$12.99, Designed by James M. Ward & Gary Jaquet 56-page 8W." a 11" rulebook 16" x 24%" map, one each 4 8. 10. 12-sided dice. Referee and one or more players: playing time indefinite. Published

Dunreont & Deprons meets Metamorphonis Alohe? GAMMA WORLD is closed from these fantasy role-playing games. Players are Humans or Mutants in a post-holocaust 25th century. suffering slines and arrows of outrarcous fortune while seeking to take up arms against their troubles. Arms range from swords to neutron bombs. Troubles include pre-holocaust robots mutant beasties, and people with slines and ar



The background world is well established. powers and limits of characters are playable. combat is simple with some unique touches. the prime factor is weapon choice, characters have a large number of "hit points" and fatigue is figured in. There's a clever flow-chart for figuring out discovered artifacts, cute illustrations throughout the rulebook, and the usual charts and tables,

Some senects make the same difficult to referee and may cause dissatisfaction. There must be more pre-planning than in other comes to make the world seem real; dungeon halfs with monsters behind each door seen't enough Pre-holoesust weapons are integral, supposedly rare finds but if the stuff is in the rules players acquire it. It destroys the excitement of meloe if a laser gun or photon grenade ends it in one blast, Experience brings only minor benefits: surviving most bezonds demends on having high basic characteristics. My not negues are exetchy movement and encumberance rules and made up names for mutant unimals so you're always looking up their descriptions. If you liked its progenitors, GAMMA WORLD is an interesting variant. Beginning players should find it easy to learn, and referees are challenged to create a playable, balanced

world. It's somewhat expensive and the sudden-death power of futuristic weaponry and the lack of character "levels" may put you off. but if the basic premise is appealing you'll probably cnioy GAMMA WORLD -Ransid Pekr

NORAD (Mishlor Company): \$6.00. Designed by Dana Lonibardy, revised by Harry M. Mishler, 8-page 8/4" x 11" rulebook; 60 discut counters: 20" x 24" map: ziolock bar. Two players; playing time 30 minutes to one hour. Published 1977; original publication

1072 This is a same about a Russian nuclear attack on the United States. The man represents North America: counters depict Russian bombers, missiles, and decoys, and American fighters, anti-missiles, and decoys. The Russian player attempts to destroy as many American cities as possible, with some cities being worth more than others; the American tries to frus-

trate him. This can be a gripping little game, especially on the first few plays. The map and counters are very nicely done, and the rules are short and very clear. As the fleets of Russian bombers come down from the Pole, both players can get a "this-is-real" feeling - enhanced by American infitation when he attacks a decoy. or glee when he knocks down a real bomber

unit. Unfortunately, NORAD is really too simple to beer repeated playing, It has no combat results table; any attack is an automatic success which destroys both the target and the attacker. This means that the only "tactics" anywhere in the game lie in the Russian's placement of his decoys, and the American's attempt to outguess him. Even with all the optional rules added, the game is simple, and victory goes to the luckiest guesser. The designer's notes which end the julebook call NORAD "a platform on which to build . . . variants. options, and higher levels of complexity." It

a true wargame, Recommended (mostly for components) if you like the subject and want to develop your own variants, Otherwise, nothing more than an

would take a lot of building to elevate this to introductory game for the young or inexper--Steve Jackson



SUPPLEMENTS CITY OF LEI TABOR (Judges Guild): \$7.98. Designed by Paul Nevins and Bill Faust. Supplement to RuneOuest. One 92-page. x 11" booklet, Two or more players; playing time indefinite, Published 1980 "Inhabitants, shops, cults, temples, inns. politics, thieves, treasures, adventures," Someone evidentally wanted a City State of the Invincible Overlord for RuneQuest. There are personalities rumors and improbable eiturtions, seasoned with a dash of Chinese flavor.

There are four maps, none of which appear to relate to the usual man of Glorantha The city is an interesting place to visit, There are many places of minor cleverness. One may encounter Omar the Sheriff, or read a reward notice for the bandit Via Duck -"100 Lunars dead; 10 Lunars alive,

Unfortunately, the City State idea does not work very well for RuneQuest, It can take half a race to describe a RuseOvert character Judges Gulld has used 92 pages for a rather small city. Also, it is evidently a rushed production job. There are loads of typos, and the art reneats Itself Adminers of Judges Guild will notice repeat art from previous supple-

linies you are rich or hard un for a Ruse. Quest city, this supplement is not worth \$7.98.

-Former Johnson THE GATEWAY BESTIARY (Chaosium): \$6.95. Compiled by Sandy Petersen, Supple-

ment to RuneOwest, 64-page 8%" x 11" booklet. Two or more players; playing time variable, Published 1980. Another monster book, Sections cover iant insects, lexendary belows, Celtile monsters, H.P. Lovecrift, dinosaurs, miscellaneous mon-

stors, and "natural" animals. If you like collections of animals and monsters, this is a good one, it doesn't include as many beasts as (for instance) an All the World's Monsters volume, but it is written in a more entertaining and detailed style - complete with play hints and "personality" discussions which are often tacking in this kind of supplement, Several truly obscure monsters (the

Chonchon is an old favorite of mine) have been researched and described, Faults are few. The most irritating thing I encountered was the poor grammar and proofseading. Many pages are decorated by huge blank spaces; a shame they couldn't have been filled with art, but if no good art is available, white space is better than bad illustrations.

all right.) On the whole, a worthwhile book for RuneOwent players, simply because the complex RO combat system makes "monster books" for other names almost useless. If you don't play RO, you might plance at this one anyway; it covers a few mythological creatures I've nover seen "gamed" before , . . and it's much easier to translate from the RO system than to it.

-Steve Jackson

GRAN OUFST (Metaesmine): \$3.95 Desimped by Guy W. McLimore. It Solo adventure for The Featers Trie Boxed with 32 more 4" x 7" booklet, 94 strip-cut counters, one six-sided die, One to five players; playing time two to six hours, Published 1980.

GRAU OUEST is a programmed adventure. suitable for solitaire or refereed play. As one of the Knights of the Round Table, you will wenture out amone the villores and lone of the unterned and enchanted lands surrounding Camelot, secking rumors of the Holy Grall and nursuing justice for Arthur's loyal subjects.

Only a true, chivalrous and pious knight such as yourself is worthy of this noble task GRAILOUEST is well-written, well-Inteersted, absorbing, and fun. Chivalry and honor are as essential as sword and shield. Players get to fight wandering knights and evil wizards. hunt down marauding bandits, slav fire-breathing dragons, rescue damsels in distress, and do all those other things that made the Dark Ares

so worthwhile Unfortunately, there are some mustakes in the numbered directions in the booklet. The first is an encounter at an inn which states "co to 77." There is no 77. Frustrating and disappointing, but easy enough to figure out. The second mistake is an instruction to "go to 14" if a player wounds the Evil Lord Krast without killing him. It should read "go to 114." Unicss you're playing with a referee who is familiar with the booklet, this is extremely confusing

and frustrating.

Other than that, this is a great little Micro-Ovest, I never knew being good could be so much fun. If you would rather defend justice and honor under the clear blue skies of Britain than go mucking about underground robbing tombs, you'll love GRAILOUEST.

-Stein Winter HELLPITS OF NIGHTI ANG (Judges Guild); \$3.00. Designed by Paul Juquays, Supplement to RuneOuest. One 32-page booklet. Two or

more players; playing time indefinite. Published An aged vampire has made his home near the tomb of a legendary bean. There are consists vermin around this not-so-happy home to take out a party of novices without assistance from

the residents. An altogether disagreeable neighbothood, unless you happen to like gold.
You do like gold? A coincidence; so does the vampire. There will be plenty of gold for those who successfully beard the vamoire and

his minions. And you probably will not have to split it so many ways, either . It is not casy to find fault with this supplement (though, Waha knows, I try), A good little adventure, casily worth \$3.00.

-Forrest Johnson

THE TEMPLE TO ATHENA (Dimension Sixl: \$4.50. Designed by Ken Ritchart. One 8%" x 11" 36-page booklet. Two or more playcrs, playing time indefinite. Published 1980. This temple is plunk in the middle of a big swamp. It is full of monks, lizard men and a plethora of other critters. Supposedly, the adventure is adaptable to any FRP system.

(What drawings have been included are quite I found nothing of interest. The cover is nice, but the interior art ranges from bad to abysmal. Typos abound. Much is left unexplained, and few players will figure out the subtleties which are explained. All in all. a waste of \$4.50. Not recom-

PLAY AIDS

-Lorin Disser

THE COMPLEAT FANTASIST (Dimension Six); \$5.50, Designed by Mark Wagner, 40-page

\$90° x 11" beedex, playing all for finative cool-pulying gener. Nulliscul 1900. under observations are not convert in Major Rose-Paris, Structure 10 and 1900 and 190

mention of the way these characteristics function in the different games. Convenion charts give swift, easy means to adjust strength, desterity, and intelligent. There are well-thought formulae for relative equivalence of experience points, money, to points. There are clear warnings as to when you shouldn't change the pursumenters of a character.

but rather carry certain ones over to the new game. THE COMPLEAT FANTASIST doesn't do enough. Two or three full nesses would give 95% of what it has to offer. There is too little information on too many pages, much of it repeated 4 or 5 times. There's a lot of blank space on many pages, ads and illustrations use up several

pages, and much too often the reader is just told to use common some.

The charts, and a few of the words of wisdom, would have made a useful pamplete, costing maybe 51, or a magazine article. If all that was promised for future volumes — magic, westoon, character clauses — had been included.

it might have been worth its price. As is, COM-PLEAT FANTASIST gives far too little for that price.

-Roughd Mark Pehr

COMPUTER GAMES
INVASION ORION (Automated Simulations); \$14.95, Designed by J.W. Connelly and Jon Frieman, Causette for the Apple II (32K),

TR3-50 (16%), or TR (16%). One player; plus just in I- Dours, once longer. Published 179. INVASION ORION is based on a susfice Automated Simulation paner clied Surplers Orion. Like Surpless Orion. INVASION OR-100 A simulation feed-readed based in space orion to the surpless of the surpless safe plays with a certain number of alpha, cent constructed on a points of flight with an ID constructed on a point system. Slips our represented as small points of flight with an ID about. For purposes of three-demonstral play, however, the purposes of three-demonstral play, two or man child gas on eccupy the same point was the contraction.

book, and advice is given so players can develop

not players, but player. Where as Starffeet

Excuse me, in INVASION ORION, that's

their own scenarios, using the builder program

Orion required two players, and the computer just handled bookkeeping chores, in INVA-SION OPION your commuter becomes the other player, attacking your fleet with the timehonored method of killing what moves You have to try to fool the computer into thinking you're moving one way, when you're really combines strong points from several same systems. Shins can only be identified by ID number, not type, resulting in limited intelligence ment by mass, and computes the mass of each ship for you Missiles are fired to a single Y Y point, where they explode; torpodoes can be fined at any angle and teavel until they his something or run out of renor. Missiles can be used to block torpedoes, resulting in interesting

anti-copyado tarciac. Optional tractor pressos beams allow each alop to use some of 1st drive to move other ships, both friend and for. When entering orders, if you make a mistake you can be come to be come to be the protor of the core of the considerance of the core overall strength; play, it can handle each ship individually, but cannot coordinate many ships in an overall play, nor can it detects such a plan if you are using one. Also, the compute canter of the compute canter of the compute canton and the compute canter of the compute can-

games. If you have live opponents available, then leave this one on the shell and buy Starfleet Orion instead.

-Todd Zervan

THE MEAN CHECKERS MACHINE (The Software Exchange); easette, \$19.95; disk, \$24.95. Program by Lence Micklaus for the TRS-80 Level II Model I, 16K. Four levels of difficulty. One player; playing time minutes or hours. Can be saved.

fantasy realism!

Ridiculous? No. RuneQuest is for thinking role-players interested in rehing the experiences in heroic literature and legend. The beave of the pest had real lives and real problems; the RuneQuest system lets you know them in their reality. RuneQuest presents the most technically-accurate role-playing mechanics yet devised, legitimetely simulating the great drames of fantasy—they are not merely collected encounter and esolution systems.

AuneQuest's combat system was creeted by e cherter member of the Society for Creetive Anachronism, the organization devoted to pietyfallly and truthfully exploring the restitles of the past. No other FRP males system was designed by someone with over 12 years of first-hand fighting with edged weepons and errors.

Runequest's magic system was petiently assembled by scholers and practicioners of real megic and the Old Religion. The guidelines for this system work alike for eny magic users, whether they belong to are religion (such as clerica) or are out for themselves (crafty witards).

RuneQuest, time-tested end proven, is a game for role-players interested in discovering all the faces of fantacy, not just one inherited from medievel Europe. Try it and set

The Chaosium publishes over 20 titles of interest to role-players and boardgamens, write for free illusrasted catalog. All leans postpaid: California residents add accommon AR SE value has





RUNEQUEST \$11.95, postp

CHAOSIUM Box 6302sq, Albany CA 94706 Checkers played very well by a computer. Although 1 cam claim no special ability at checkers, I'd like to beat it once at level 3, much fees at level 4. Darn thing doesn't seem to make any mistakes, and traps me regularly.

make any mistakes, and traps me regularly. Strong points are OK graphics, sensible movement system, and ease of learning. The computer plays a lovely game.

Weak points - none. (How's that again? Correct - none.)

A super program. If you enjoy checkers, I heartly recommend this work.

"-J. Mithon
PLANET MINERS (Microcomputer Games)
AH); \$15.00. Program for the TRS-80 Level II,
16K. (Sold in one package with prozzams for

WRITING REVIEWS FOR THE SPACE GAMER

Capsule Reviews we print will be "capsie" reviews – 400 words or less. We pay \$5 for each capsule review accepted. We want to run a review for EVERY new sf or fantasy game or supplement. During 1980, we'll also secont tempera of idder earners.

Each capsule review should be five puregraphs long, and contain: (1) Basic information. Present these facts, in this order: Name of the game; publisher; price;

designer. (If applicable: "supplement to —,
"companion to —," or similar note.) Format: list of components, with sizes of maps and
rulebooks, number of counters, etc. Number of
playors; playing time; publication date.

(2) General description of the game: background, the sides, course of play, special features, etc.

(3) Strong points, Discuss what is good

(3) Strong points. Discuss what is good about the game; in every game; there IS something worthwhile. Don't try to be Pollyanna—just point out the game's successes.

(4) Weak points. Every game has its problems, too. If the only faults you can find are

minor ones, say so. If the game is fatally flawed, come right out and SAY SO. If you can phrase your criticisms as suggestions for improvement, do so.

(5) Summation: your overall opinion of the game, Who should and should not buy it, and

All reviews must be signed; the reviewer's name WILL be printed. No game may be reviewed by its designer or by an employee of the publisher. (Designer's articles are welcome, but must be billed as such!) Final note: If you can write a complete review in less than the full

400 woods, by all means do so.

This review format is designed to encourage fairness and to give the reader enough information to let him decide whether he wants to by that game. Keep that in mind when you writer. This is a short review, NOT a complete analysis. For those who want to write longer reviews, each issue will have one or two — ger reviews, each issue will have one or two.

England Panisma

why.

Featured Reviews
These will be game reviews 1,000 to 2,000
words long. They should contain all the above
information, plus whateve else the reviewer
wants to say. They may be written in any
format. A featured review may cover either a
new game or one that has been on the market
for some time. If TSG has not already printed
a capsule review, write one and submit it at the
same time. We may even use both.

the Apple II and PET.) Four pages of rules, casacite, boxed. One to four players; playing time 1-4 hours. Published 1980.

PLANET MINERS desicts a struetle for

control of mining construction on the size piace of our solar system between four rind corporations. The pame is set at a time in which open carried in solarly sensible but not very plant to planet beginning to the property of the property of the property. All four corporations are all problem for play, with any families not played by a person consisted with the property of the p

a planet and the government of Earth decides to grant it to them. Players may also gain concessions by protesting claims and by chânguning. Earth this is assigned "iffensets" rating which represents its ability to favorably influence the government on Earth and it sublity to successfully claim-jump. The player with the most concessions after 40 turns is the winner.

The players are given two real problems to

The players are given two real problems to solve, One is whether to allocate the best ships to goodrament influence or to grabbing claims. The other is whether to try to grab as many claims as possible on the small inner planets or to be more patient and go for the geologicalby richer but much more distant outer planets. Unwiter and beyondh.

The game has several major flaws. The game has several major flaws, they are very slow to appear, Since most of the displays need to be seen several siness each way, you spend a great deal of time just waiting. As an economic situation it is far below the very of such games as Sonte Purevise and Flamoccio or Galentic Francier.

Overall I found it tedious, I would not recommend it,

SARGON II (The Software Exchange); cassette, \$29.95. Program by the Haydn Book Co. for the TRS-80 and Apple II. Swen levels of difficulty. One player; playing time varies from minutes to days. Game cannot be saved (but board can be set up in any position).

This is chess played faithy well by the computer. Level 0 is an idio to but responds instantly. Level 3 strenger 40 minutes promot and beats me regularly. Level 3 takes about 2 minutes most moves and 1 can beat him/her/it with fait regularly. (As a reference, 1 play medium chess, know a few openings, and play regularly with a pay rated 1200+ by the United States Chees Federation.)

Strong points are legion for this work. A raadomistic misurest that the computer will not always respond identically to the same distriction. The program shows you what move it currently considering, will give you suggestion for your move if you with, generally plays faultiess, though cettainly not master chees.

I refuse to even mention this same's trivial

This effort stands strongly in the small group of programs that set industry standards. It is a competent computer opponent in the inneedibly complex world of chess. Highly recommended for everyone short of the chest master.

weak points.

TAIPAN (The Software Exchange); cassette, 59.95. Program by Art Canfil for the TRS-80 Level II Model I, 16K. One player, playing time 15-30 minutes, Cannot be saved.

At the helm of your lone vessel you usil between China, Japan, and other Asian ports. You are deeply in debt to the monty-lender, was you pay of the prizes keing Wayls famine sweep south China and printly raise general damp opinion on a fer mirekt. At the plate junks fift the horizon, will you fight or run't containly trading, you deal in arms, silk, opinion, or whatever will turn a ptofit a you try to being \$1,000,000 beak to Hone Kwang and

The game has wonderful graphics (but no sound). The pirath's pass flicker as they for and the deek quivers with each hit. The game is constructed by the work of the work of the game is constructed by the work of the money-kinder gamely suggests you pay up or else. A player it constantly making tough decisions to win the game, and the choices all have their owe petc. A point accrete signiful and the choice sail have their owe petc.

to allow compensorin between games.

The game's major flaws are the ability to buy cargo in fractional amounts (which defeats many of the tough decision saided lot), and the many of the tough decision saided lot), and the features. So are not to spoal the far I won't detail them here, but it's safe to say most players will optimize their moves after the first 50 or so mantes. Ab, but those 50 games!

This game is so much fun that I must recommend it (but I suggest that players only allow purchases in integer amounts). It will be a constant delight for older children.

-J. Mishcon

BOOKS

THE COMPLETE BOOK OF WARGAMES (Simon & Schuster); 58.95. By the editors of Consumers Guide, with Jon Preeman, among others. Paperback, 286 pages, with glossary, andex, and publishers' directory. Published

How the folks at Consumers Guide got intercepted in watgames is something of a pazet, intercept in watgames is something to a pazet. But here we have the best introductory guide to wargaming yet published. Fereman has done an admirable job in describing that amorphous thing we call "the industry" in a coherent and nearly comprehensive fashion. Certainly THE COMPLETE BOOK OF WARGAMES will set

Construction of the book is simple and straight to the point. The first part gives 50-page plays, and how to applicable what has plays, and how to applicable what has plays, and how to applicable what has plays, and how to applicable plays, and how to applicable plays, and how to apply the plays and plays

But the real payoff is Part 2, "Evaluating the Wagginess". About 200 page are devoted to detailed descriptions of more than 140 warms. From New Filteryon to ADD. Not two-games - from New Filteryon to ADD. Not two-games - from New Filteryon to the title, date publishes, subject, playing sea, balance, playing area, balance, playing area, balance, Ney Features, comments, and an evaluation in terms of penetration, racking, playability realism, complexity, and oversall treatment. The first possible of the penetration of the penetration of the penetration of the penetration of continuous discussions of each entry. The first observed

on "computers in wargaming" is the best thumbnall account to date.

The selection of titles covers all the historical periods, near-future themes, selence fiction, fantagy, and role playing. Everybody gets a fair shake. The commentary is honest to the point

of butality. For example, the section on Drang Nach Osten! concludes, "This game is like a brontosaurus: a fossilized relic best viewed from a safe distance." The book would have been eightly use proved if each reviewer's nitials had been put after each entry; knowing who's anying what spies the reader the opportunity to discount possible built-in biases. A second problem that possible built-in biases, a second problem that cours is not so much with the book as with a second problem that the provided built-in biases. A second problem that are large and the problem that the problem th

less) while the book was being prepared.

The mercurial aspects of wasgaming will probably leave any new publication a bit obsolete the day it's published. Meantime, we have an excellent reference work available at (for a change) a reasonable price. Buy and enjoy.

Mich Schuember.

PURLICATIONS

THE AMERICAN WARGAMER (AWA); \$8/year (this price covers 12 monthly issues and includes membership in the American Wargaming Association), 8%" x 11" printed offset. First published 1973.

This medium-tized newletter (the copy I have is 12 pages long) in the official publication of the American Warganing Association. It contains an eclectic mix of edw news, convention schedules and reports, game reviews and comments, ministures news, and whatnot. Almost all the material in this issue was Will-oriented, with a little "ancient" rhown in. Revery, there are indications that science fiction, featurey, and robe-playing may sometisses be

A typical fanzine: quick, informal ... whatever the mombers felt like witting and the
editor typod up. As with any finzine, the material is uneven. Some of the reviews and comments seem very perceptive. Others read as
though the writers were overwhelmed with
their cuteness. The average outlive is ... well.

average.

This seems to be for the serious historical wargame fan — the person who plays a lot of wargame fan different periods, likes to saik about them, likes to write about them, likes to red about them, likes to appeal and the production of the control of the co

-Steve Jackson

ERRATA

Because of a typographical error in issue 31, a piece of art by Kevin C. Eilis was credited to "W.C. Eilis". Our apologies. Fantasy Productions, Inc. (also doing busi-

Fantary Productions, Eee, Calto colors besses at Verland's, Inc.) has pointed out some stron in the storker of High Fentages in issue (1). (1) If In It's nated how witnest equality (1). (1) If In It's nated how witnest equality (1) In It's nated how witness of the storker of

Due to an oversight, an important phrase was omitted from the Space computer game review in issue 31. As printed, the ninth line of the fourth paragraph reads, "IF [P (-LP)..." It should read "IF IP is greater than (-LP)..."



The Cantasa Triv

is killing mum-tees. Inding trea-sure, heaving danger, yoning quests, conjuring magic, and exploring the unknown. The romance and mustep, life should be THE FAXTASY TREF frees your imagination for an evening of fast and adventure. It's the melophering game for the Mo^{*}, the oner you've waited for.

ture. It's the rule-playing game for the 80% the one you've waited for Rules are well structured, logically related, and case to learn. If-vigited a x series of inexpensive, regularly published rules modules, TBE FANTASY TRIP will stay exciting for years. This is the new standard in rule-playing, the next seneration in the evolution of the erner.

X IN THE LABVENTH Is the first Game Moster's models. It ton you create worlds and guide characters on adventures. Included are Hero Telenis and copy worlds and guide characters on steps of the Copy of the Co

02-1-002

ADVANCED MELEE expands MELEE's basic combut system. New material includes aiming, aerial combat, water combut, critical hits muunts and same new options. If you want more reality and rules for new situations, this is for you.

ADVANCED WIZARD expands WIZARD's havic magic system into a cumplete guide to adventure magic. New material include a series of higher IQ spells, alchemy, and magic items. This greatly expanded module is just the thing for masters of the wizardh art.

TOLLENKAR'S LAIR is a ready-to-play labymeth. Game Master's are provided with maps, mapping notes, background, and instructions necessary for a cries of adventures. IN THE LABYRINTH and a combat and magic module are necessary for plays. \$2.95.02.2.001

Allow three to six weeks for delivery. USA and Canada only. Send check or money urder, plus \$.50 postage to:

Metagaming
Box 15346-TSG, Austin, TX 78761

The new TSG shows promise. However, don't completely lose your hentage. A couple of saming stratery articles or variants, too. please Preferably half the irrue. This last irrue. no. 30. didn't have any such articles, I ootice you don't seem to be soliciting articles you more, except for reviews and contests, I think this is a big mistake. What about the likes of Glenn L. Williams, Dave Ritchie, W. G. Armintrout, and Norman Howe, who contributed sent in one-shot articles to keep TSG fresh. I don't know about Mickey Mouse they struck me as eather good. (Better than these ladox/Guido/Survey to This and That "articles" you are printing. No more of them, please.) Your contests storted out poorly. I thought Kung Fu contest was kinda unimaginative and not so hot, however, they have got much better. They are simple but effective. The

latest, on trans, quebt to provide several peres of very interesting reading. I hope you decide to print a number of trans and not just the win-I just have one surcestion recarding the contests. If you could make the deadlines a little bit longer, it would enable Canadians to

I like the "Painting Fantasy Miniatures" by Kerin Hendryx. A well written informative stries of articles. Don't go overboard on reviews please. You might have to cut down on the few ture reviews and just go with capsule reviews until you get it down to a manageable amount Thank you for the good work

David Brockington Maple Ridge, BC On the contrary - we have been, and DEFINITELY still are, soliciting outside articles, As you say, that's what it takes to keep TSG fresh. As long as the writers keep sending good articles, we'll keen printing them (for instance. Armintrout it in this issue).

In all honesty, I thought Issue 30 was a little coarse. Kune Fu 2100 was excellent, as were Painting Fantasy Miniatures and Deus Ex Machina but they were the only real articles. I'm glad to have the index, but there isn't much reading material there. (I was stunned by how short it was - I expected two or three pares.) Game Design seems to be describe on a bit too long, telling me things that should be obvious to anyone who's ever played a boardrame. And two feature-length FRP system reviews in one issue is too much. How about a capsule on one. just to make sure nobody buys it, and save its feature for later. I mean it's depressing to read about two burn FRP names in one issue. I don't want to complain too loud, though,

Steve Winter

Dubuque, IA

I wish to take strong exception to lay Rudin's review of Crypt of the Sorcerer, in which he constantly complains about the price of the set (\$15.00). This set contains well over \$16.00 retail merchandise, not counting map and rules (which are "free"). I sell quite a few of these as an excellent

ince I still have to end it with Keep Up the

Good Work

starting set for beginning figure painters. Coverns of Doom is an even better buy. I wish to emphasize that I have no connection whatsoever with Heritage, other than offering their products for retail sale.

Dan Warner SIMUTEK, POB 13687, Tuscon, AZ 85732; Kennedy's Models and Games 502,886,5880 Founded 1978 Owner Michael Los angeles, CA Gariepty, Programmers: Michael and Andrew



Letters

When we do a had some and set a had review, we take it. When we nublish a same eve-

tem like Adventures in Fantasy we do not expoet a magazine like yours to publish a poorly written hatchet job by a reviewer Impressed with his own critical commentary.

Not one customer, even those who had to wait several months to get Adventures in Fentery when our printing was delayed last winter has had one bad thing to say about it. When we ect tood comments, from people who have spent money on the product and then see a review like the one your marazine allowed to be published, we lose faith in your professional editorial interrity.

At Origins we expressed a strong interest in advertising in your magazine. Since this is our only effective mentest to what we feel was an uncalled-for tun of an excellent trice of work we will not place any advertising with you this YEST.

Dennis P. O'Leary Vice President Excellibre Games

If a review consults some error of fact, we are not slow to correct it. But if you are unset because the reviewer didn't think your same

were worth \$25, there is nothing we can do The integrity of our reviews is a major asset of this moratine. If a review seems unfair, we don't print it. That's why we ask publishers to send review copies here. But if running an honest review means losing an advertiser wer well fort home to the with that

I liked your Game Design article, However, despite your remarks, Tectics II. Gettysburg. and D-Day do not use the same CRT. The 1958 Tacrics II table (as opposed to the '61 version) had D retreats of 3, 4, and 5; the old Gettys burg table lucked the exchange. Even after the Stalingrad CRT was standardized, there were small variations from same to same. For example, soak-offs at less than 1-6 were forbidden in Stalingrad and allowed in Waterloo and D.Dav: on the D-Day slide rule CRT odds beyond 1-6 and 6-1 were fought as 1-6 and 6-1 rather than brine automatic eliminations, etc. Also, while Tecties proceeded Gettysharg (by about 5 years),

I mm reasonably sure that Gettysharg was out
the year before Tecties II (though both were out in 1959), D-Day was also the first same to use NATO unit symbols - Tecties II had circular HOs, but the unit types were words printed on the counters.

Finally, in defense of the early '60's AH titles, I point out that they continue to be niqued while many later sames have vanished Certainly, both AHIKS and the AWA find that Materico and Stationered are among the most commonly desired games for tournament play.

George Phillies Ann Arbor, MI

SOFTWARE SUBJEY

A number of forms for our 1980 Game Software Survey arrived late. Among them were the forms for Simutek. which we had included in the survey, based on information from a catalog, (We try to include advertisers in our surveys whether they send in their forms or not)

The additional information: BASICS AND BEYOND, INC., Pinesbrids Road, Box 10, Amawalk, NY 10501; 914-

962-2355. Founded 1979. Buys outside programs; offers choice of royalty or flat fee, Sells by mail: catalog available. RASICS AND BEYOND sells 16K cassettes for the TRS-80 Level II. Microcopm I is a package of 30 programs for \$19.95. Microcosm II is

a package of 20 programs for \$19.95, Microcosm III (to be released in September) is 20 programs with sound for \$24,95. Unfortunately, the programs given in a package have little to do with each other. For example, Microcopm I includes both the game

program Atlantis, and a calorie-counter pro-

Garienty. Buys outside programs; 5-10% royalties. Sells by mail; catalog available.

SMALL SYSTEM SOFTWARE, POB 366, Newbury Park, CA 91320. Founded 1978. Owners and programmers: Tom Nussmeier and Gary Thurmond, Sells by mail; catalog availa-

ble SSS produces cassettes for the TRS-80, 4K. \$10.00 each, Titles include Air Rold, Borricode, and a version of the well-known program Life.

THE SOFTWARE FACTORY, 23849 La Salle Canyon Dr., Newhall, CA 91321; 805-259-8558. Enunded 1978. Owners and proummers: Don Worth, Frank Wood, and Bob Maje, Does not buy outside programs, Sells

by mail: catalog available. The Software Factory specializes in programs for the Apple. The only game listed is the enjoyable adventure, Beneath Apple Monor \$15.00 in the cassette version (16K), \$20.00

on disk (32K).

Also, we failed to mention that some familiar game companies - Zocchi and Schubel & Son - distribute game programs, in addition to their regular products. Both companies distribute Automated Simulations games, among others.

NO TURKEYS!

You'll never waste your money on a "turkey" game again...if you read THE SPACE GAMER.

There are more games to choose from than ever before. You can't afford to spend money on turkeys. And you don't have to

THE SPACE GAMER runs reviews of every science fiction and fantasy game published. We also review supplements... game aids...miniatures...and more. Even some historical games!

If a game is good, our reviewers say so. If it's not so good, they tell you WHY... and how it could be improved.

THE SPACE GAMER will pay for itself the first time it steers you away from a bad buy — or tells you about a good game you might have missed.

Are you into computer games? Again — TSG to the rescue! We review new game software — all kinds. With tapes and disks costing \$15 to \$20 and up, you don't want to throw your money away. Read the reviews before you buy!

Of course, we carry more than reviews, we've got articles on strategy, Variants and scenarios for your favorite games, Letters, cartoons, and art. Fiction (and every piece of fiction is followed by a game scenario or variant to go with the story). We even have complete games in some issues.

lame	
ddress	
tate	Zip

TSG subscribers also get free postage when ordering games and other products from Steve Jackson Games.

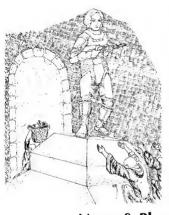


Please send me THE SPACE
GAMER for:
() One year (12 issues) - \$21
() Two years (24 issues) - \$39
() Sample issue - \$2.50.
() Check here if this is a
resubscription.
() My check or money order
is enclosed.
() Bill my MasterCard.
() Bill my Visa.

Signature:

Help stamp out turkeys! Subscribe today.

THE SPACE GAMER / Box 18805-O / Austin, TX 78760



Calendar

September 12-14 OTHERCON IV. SF garning con, College Station, TX. Contact Sven Knudson, POB 3933, College Station, TX 73846: 718-725-0692 or 729-2588

September 19-20: FALLCON. FRP con, Sycamore High School, Cincinnati, OH. Contact Wanna Play, 5923 Hamilton Ave., Cincinnati, OH 45224.
October 17-19: WORLDS III. Wargaming, set

and fantasy con, Philadelphia Treadway Mohawk Inn, Philadelphia, PA. Contact Worlds III, 314 Edgely Ave., Glenside, PA 19038; C15) 887-3876 or DE3-1998.

February 14-16, 1981: DUNDRACON VI. FRP gaming con, Oakland, CA. Contact & 386 Alcutraz Ave., Oakland, CA 94618.

CONVENTION ORGANIZERS - let us know about your con! Free publicity never hurts.

Reader Ads

Reader ads are available to individuals (not to companies). \$5 per insertion; limit 20 words or four lines,

DUNGEON TRAPS - # plans that will drive your players crazy. Send \$1.00 plus 25 cents postage to Reilly, Box 8144, Rochester, NY 14617.

Sale and Auction: Am auctioning off Traveller Journal no. 1, best bid over \$10. Also, lots of games and mugazines for sale. Send SASE to Allim Gleksman, Apartment A-11, 250 Beverly Blvd. Upper Darby, PA 19082; (215) 259-9923.

AUSTIN AREA WARGAMERS are invited to the TSG playtest sessions. Want to play, discuss and review new games from various mfrs? Call 447-7866 for information.

News & Plugs

Uncontrollable Dungeon Master (PO Ben. 13). Hierertife, CA 31333 is a new company with one game, Denth and Destruction. Not to be confused with another popular game with the same initials, D and D can be played by 2 to 64 players. Each of the 64 pieces has a different name and different powers. Lust, for an experiment of the confused of the control of the control

SPI offers the 4-page, bi-weekly Richard Berg's Revlew of Gemee. Issue no. I includes reviews of Fortress Europa, Streets of Stalingrad, Hero, and Swathbuckler, all non-SPI games. There is also the news column, "Grapes." Subscriptones 250.00/vers (25 issues). panis working on different Dallar games Yaquinto is doing one, the other a being done by ... (gaspl 55f. Naturally, both companies misst that theirs is goog to be the "big" game..., We understand that 57f is doing the role-playing version, while Yaquinto has the boardgame.

The American Waganning Association (see Game Survey), use 28 ju looking for members. \$8,00)year. Included, The American Waganner, a monthly neweletter. Also subhible, Jeeff Pimper's All the World's Waganner 1955-1977. \$2,00 to members, \$3,00 to non-members. Also, The AMA Gaide to Running Waganner Contentions, from to organizars. The AMA Content Membership Survivary John Koostt. \$231 St. Colleges n. 112, Boulder, CO 80303. The Gamenaster (POB 2878, Anaheim, CA 92804) offers the PBM game Wofan. Set up \$10.00, including the first three turns. Subsequent turns \$2.00. Rules may be purchased separately for \$4.00.

The National Monstergaming Society (see news, TSG 30) has set dues at \$5.00 per year. The Dave Casciano Co., also doing busties as Attack International, is producing fantasy minastures. Just released — eight 25 mm

Fantasy Simulations, Inc. (2840 Robinette Dr., Orange Park, Fia. 32073) offers the PBM game Interstellar Imperialism. Set-up \$3.00. turns 30 cents. (That's right, 30 cents.) In leu of turn feet, players may subscribe to FSI monthly The Fantary Journal Separate Sibmonthly The Fantary Journal Separate Sibmonthly The Sibmo

scriptions are 65 cents per issue.

EVE JACKSON GAMES

Yes it had to honorn Stree Incknin - the desirner of OGRE, G.E.V., and THE FANTASY TRIP - is now in butiness on his own. An 10, it has 10 happen, siere inchesin - the uniquer of Octob, observations and the second of a new an observation in the first form for more than 10 may be a new to the contract them with the unity world event from for more expensive nuclearer. Full-color mans and covers. Mustrated rules. multi-color counters. at 53 per sums! Read on...

RAID on IRAN



KUNG FU 2100 First published in TSG 30. Now - hy popular demand - a separate same.

Can you free the hostores?

A simulation game about the U.S. raid into Tehran. If the raid had gone in, Special Forces teams would have battled Iranian fanatics - with the hostages' lives in the balance. What would have happened?

An alternate scenario explores the possibility that the Avatollah himself might have been the target of a raid to be traded for the American hostoner

Rules cover U.S. surprise, mob action. helicopter breakdown (of course!), undercover aid, panicked/berserk militants, and more.

For one or two players, Playing time under 90 minutes RAID ON IRAN includes a full-color

16" x 21" man of the embassy grounds 112 counters in 3 colors, and an illustrated rules sheet. Game design by Steve Jackson.

Add

HEROE FULL-COLOR 25mm miniatures printed on heavy cardboard. Each figure

folds to form its own base. Front facing is shown on one side (see nictures above): rear facing is on the reverse. You'll never use flat countees sesio Your fantaty hattlet will have all the

detail and excitement of miniatures without the cost, weight, and painting hasse of metal figures. And you'll seldom see ANY miniatures as beautifully colored and detailed as these Set I contains the fantasy heroes for

all your games: men, elves, dwarves, halflings, fighters, wizards. clerics. thieves ... 40 floures in all ... only \$3 Coming soon: monsters, villains, and

morel

For years the CloneMasters have ruled the world. Their only foes are the Terminators - trained from birth in the martial arts. Now you are a Terminator With only two companions you must smash your way into the CloneMaster's fortress . . . chop through his defenses . . . to destroy him former

But his guards are many and loval, Like you they can kill with a single blow And time is against you . . .

KUNG FU 2100 includes 112 counters in 3 colors: 16" x 21" rules sheet: 10" x 21" color man: extra CRT and record

sheets: and ziplock bag for counters. A unique combat system represents the martial artists' attacks and defenses. For one or two players, Playing time under 90 minutes

Designed by B. Dennis Sustage Edited by Steve Jackson and Forrest Johnson.

Please send me the following: () RAID ON IRAN () KUNG FU 2100 () ONE-PAGE BULGE () CARDBOARD HEROES, I have enclosed \$3 for each item, plus 25 cents per item for 3rd class postage, or 50 cents per item for 1st class postage. Please allow 2 works for 1st class, or 4-6 works for 3rd class. Sorry - we cannot accept retail

orders fr	01	77	00	45	d	8 1	h	e	Ü	s	271	ď	C	à	121	to	a	e į	מנ	rs	o	ı.	Ē	30	66	Ву	5	Io	n	4	nc	Ì	ib,	Z.	9	22	ю	à	nq	724	h	ic	1	112	d	c	Ĭ.	
Name																																																
Address.	÷																																															
Cav																													s	ne.									2	'n.								

[em paying by [] check [] money order [] credit cord. Total enclosed.........

CHARGE ORDERS (please do not charge purchases under S10) () Charge my Visa () Charge my MasterCard

BOX 18957-T AUSTIN, TX 78760

Subscribers to THE SPACE GAMER net free posters on same orders. If you subscribe to TSG. use the order form on your mailer cover or include your mailing label. Or subscribe now (\$21 for 12 monthly issues, \$39 for 24 issues) - and your name postene is free.

ONE-PAGE It started as a challenge: Design a good

warrame with only one pres of rules ONE-PAGE BULGE met the challenge! A regimental-level simulation of the Battle of the Buige - with complete, detailed rules - including weather and Allied air superiority, German supply and isolation. and optional rules for bridge destruction and canture of Allied supplies.

A short game . . . but not a simple one! ONE-PAGE BULGE is challenging fast and playable, yet a good representation of the last battle for the Ardennes. ONE-PAGE BULGE includes 16" x 13" full-color map, 112 counters in 3 colors, turn record track with CRT ziplock bag for counters, and one page (8" x 11", both sides) of rules. For 1 or 2 players: playing time one to two hours. Game design by Steve Jackson.

Martian Metals Compromises!!

there were no hard feelings on Mars about the way your local gravity fields messed up our inertializer. Even though we WERE doing it all for your benefit -- turning our ads upside Greetings again, Earthlings. We just wanted to get back in touch with you to tell you down to fit your silly magazines. We were a little bit annoyed when your printing plant flipped over sideways - but you can't be blamed for that.

n-polar redundant icthyophagous interminibilator to the system. So this month the ads will And to show what nice guys we are, we're trying again. We've added a compensating

dease quit babbling and say something about the miniatures

the whole galaxy, and they're disgustingly inexpensive, too. THIRD: If you don't buy them, buy them. FIRST: You can use them with GDW's TRAVELLER", which is the most realistic game you Earthlings have. SECOND: They're the best science-fiction miniatures in Right. This is an advertisement, Earthlings. You're supposed to read it and then go out and buy lots of our TRAVELLER miniature figures. There are three reasons you should the boss Martian will cry.

state secrets. Just turn on the machine. Here - I will, OH, NO ...) Hey, look at those Earthlings run!

(I think we overcompensated. Do you think they'll like their building better turned on

Who cares, as long as they keep buying? TRAVELLER""

Manufacturers of DRAGONSLAYERS^{INI}

Martiam Metals

01956 Pass Rd. Dept. SG Gulfport, MS 39501 601-896-8600